AUDIO/VIDEO STEREO RECEIVER
RECEPTOR ESTÉREO DE AUDIO/VíDEO
音響／錄像立體聲接收器

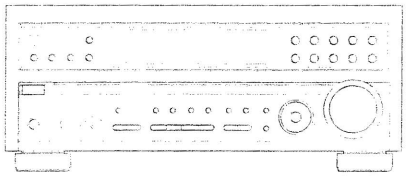
Operating Instructions

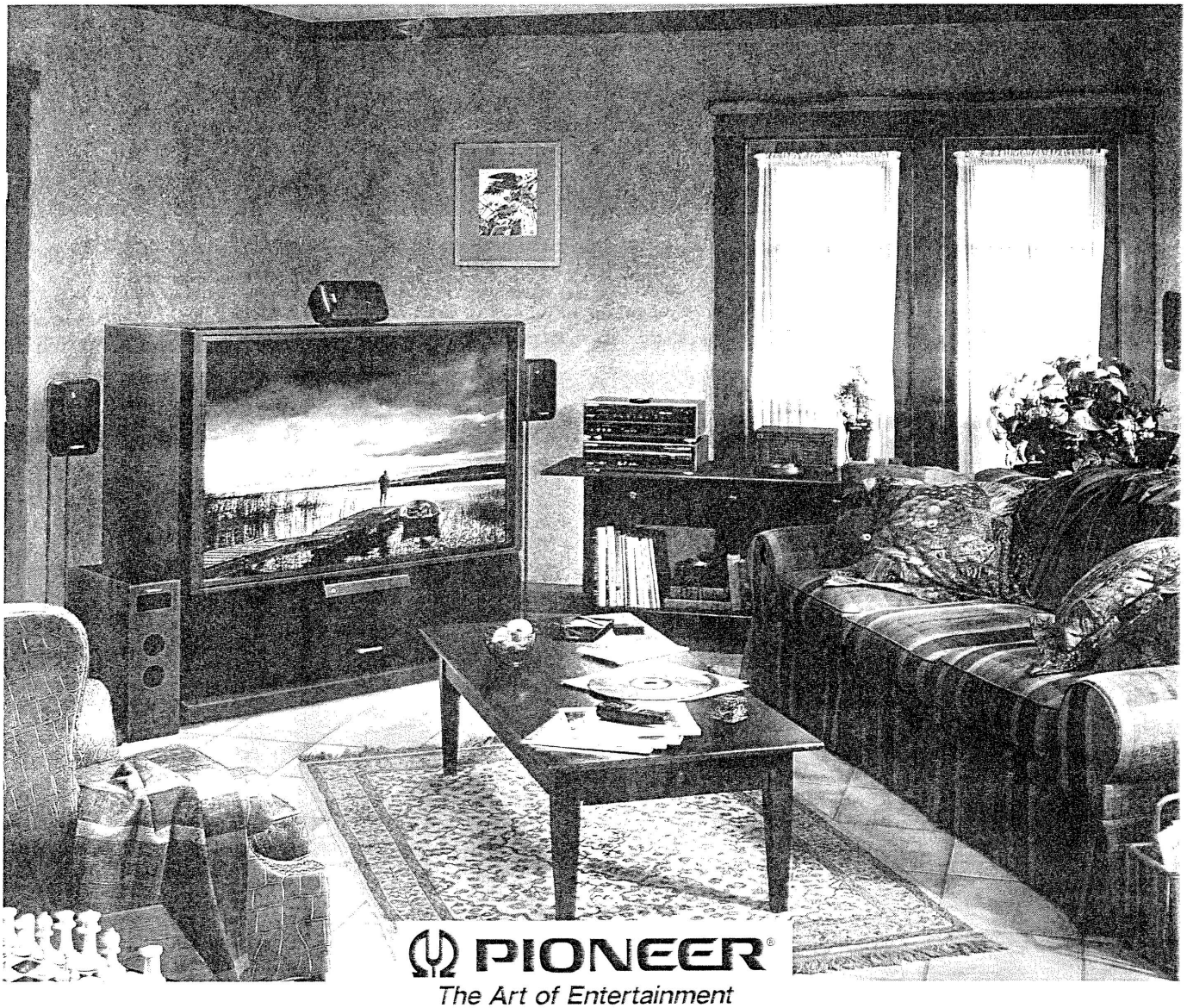
Manual de instrucciones

操作説明書

SPARE PARTS MASTER

VSX-D906S





PIONEER®

The Art of Entertainment

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However the method of connecting and operating the unit is the same.

VENTILATION

- When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 60 cm at top, 10 cm at rear, and 30 cm at each side). If not enough space is provided between the unit and walls or other equipment , heat will build up inside, interfering with performance or causing malfunctions.
- Do not place on a thick carpet, bed, sofa or fabric having a thick pile. Do not cover with fabric or other covering.
  Anything that blocks ventilation will cause internal temperature to rise, which may lead to breakdown or fire hazard.

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN THE STANDBY POSITION.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

RESET function

Set the MASTER VOLUME to minimum before pressing the RESET button.
Use this function when normal operation is not possible due to external influences such as static electricity or lightning, or when operations are not functioning even when the operation switches are pressed. Press the RESET button to return to normal operating conditions.

IMPORTANT

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

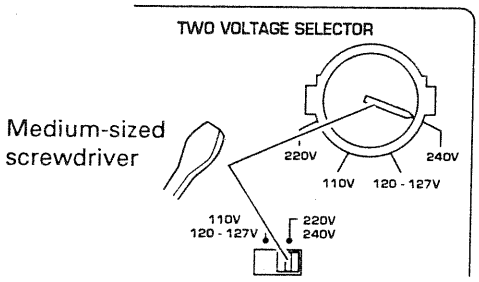
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TWO VOLTAGE SELECTOR SWITCHES

Only the multi-voltage model is provided with these switches. Mains voltages in Saudi Arabia are 127 V and 220 V only. Never use this model with the 110 V setting in Saudi Arabia.

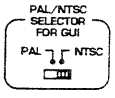
The line voltage selector switches are on the rear panel. Check that they are set properly before plugging the power cord into the household wall socket. If the voltage is not properly set or if you move to an area here the voltage requirements differ, adjust the selector switches as follows.

1. Use a medium-sized screwdriver.
2. First, insert the screwdriver in the groove of the voltage selector at the left, and adjust so that the tip of the groove points to the voltage value of your area.
3. Next, insert the screwdriver in the groove of the voltage selector at the right and adjust until the voltage is the same as at the left.



PAL/NTSC SWITCH

This unit uses the TV screen to operate the system. Set the rear panel PAL/NTSC switch to match your TV's color system. The screen will be unclear if the color system does not match.



CHANNEL STEP SWITCH

The unit has been factory preset to the channel allocation value for the area in which it is to be sold. If this value is set incorrectly, the tunes in frequency may be wrong, or sound may be distorted, resulting in an inability to reproduce reception signals at their proper sound quality. For this reason, be sure to confirm that the values are set correctly before first using the unit.

(FM 100 kHz/AM 10 kHz) position:

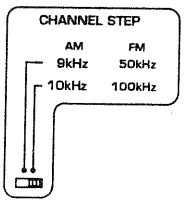
Set to this position for areas with an FM reception step of 100 kHz and AM 10 kHz.

(FM 50 kHz/AM 9 kHz) position:

Set to this position, for areas with an FM reception step of 50 kHz and AM 9 kHz.

NOTE:

When unsure about the channel allocation for your area, consult your dealer for correct information.



FEATURES

□ DOLBY DIGITAL & THX® 5.1

With the play back of Dolby Digital-compatible LD and DVD software, the dynamic effects of movie theaters and concert halls can be reproduced within your home.
When used in Home THX Cinema mode, special processing is applied to accurately recreate the level of power and realism as would be experienced in a well designed movie theater.

□ 100 W 5 CH EQUAL POWER DISCRETE AMPLIFIER

5 ch equal power discrete amplifier accurately reproduces the high quality effect of Dolby Digital.

□ 5 CH DIRECT ENERGY "MOS" AMPLIFIER

Improved power linearity made possible by the use of high-performance Hex power MOS FET output transistors.

□ DOLBY PRO LOGIC & THX

Best suited for playing back movies encoded in Dolby surround.
When used in Home THX Cinema mode, same as Dolby Digital and THX 5.1 as above.

CONTENTS

1. BEFORE USE

CHECKING ACCESSORIES 7
REMOTE CONTROL UNIT 7
INSTALLATION 8

2. NAMES AND CONNECTIONS OF PARTS

NAMES OF PARTS 9
CONNECTING DEVICES 12

3. INITIAL SET UP

GUI (Graphical User Interface) 16
SYSTEM SET UP 16
COMMANDER SET UP (remote control unit only) 23
PERFORMING REMOTE-CONTROL FUNCTIONS SPECIFIED 28

□ CONTROL OF OTHER MANUFACTURERS' EQUIPMENT USING THE MULTI CONTROL REMOTE (Heads-up Smart Remote) CONTROL UNIT

Can be used to operate other manufacturers' products by either recalling the preset infrared codes or learning those not already stored in the unit.

□ VARIOUS SURROUND EFFECTS (DSP)

Reproduces five different surround effects for music and movies.

□ ON-SCREEN GUI (Graphical User Interface) DISPLAY

A graphical user interface (GUI) display makes it easier to operate the receiver and remote control unit. Also comes with a CD file capability which makes it possible to assign up to 100 different CD titles.

Manufactured under license from Lucasfilm Ltd. Lucasfilm and THX are trademarks of Lucasfilm Ltd.

4. OPERATIONS

SELECTING THE SOUND REPLAY MODES 31
SWITCHING THE INPUT SIGNAL 35
SWITCHING AC-3/PCM DIGITAL INPUT (OPTICAL BUTTON) 36
LISTENING TO FM/AM BROADCASTS 37
RECORDING 41
OPERATING OTHER COMPONENTS 43
LD PLAYER/DVD PLAYER operation 43
SAT (Satellite Tuner) operation 43
CD PLAYER operation 44
CASSETTE DECK/VCR operation 45
TV operation 46
MODE CHECK BUTTON 46
CREATING A TUNER LIST 47
CREATING A CD LIST 50

5. OTHER

SURROUND 53
TROUBLESHOOTING 55
LIST OF MANUFACTURER CODES 57
SPECIFICATIONS 58

READING THIS MANUAL

■Meaning of Marks

memo — Provides detailed precautions and advice on operations, etc.

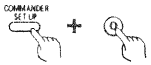
Indicates that buttons or displays are blinking.

Indicates that buttons or displays are lit.

■Meaning of Illustrations

The following describes illustrations on pressing buttons of the remote control unit.

Means to press the ENTER button.



Means to press the 0 button while simultaneously pressing the COMMANDER SET UP button.

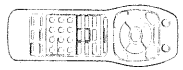
Means to press the VOL – button or VOL + button.

1. BEFORE USE

CHECKING ACCESSORIES

FM antenna

AM loop antenna



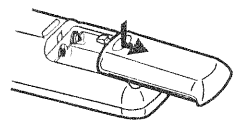
Remote control unit

Alkaline dry cell batteries (size "AA" IEC LR6) x 2

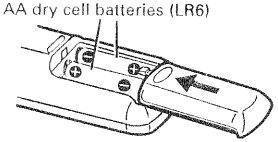
REMOTE CONTROL UNIT

Loading remote control batteries

1.



2. AA dry cell batteries (LR6)



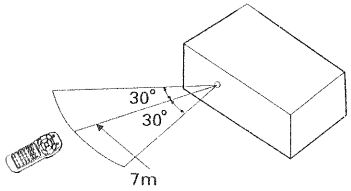
CAUTIONS

Incorrect use of batteries may result in such hazards as leakage and bursting.

Observe the following precautions.

- Never use new and old batteries together.
- Insert the plus and minus sides of the batteries properly according to the marks in the battery case.
- Batteries with the same shape may have different voltages. Do not use different batteries together.

Operating range of remote control unit

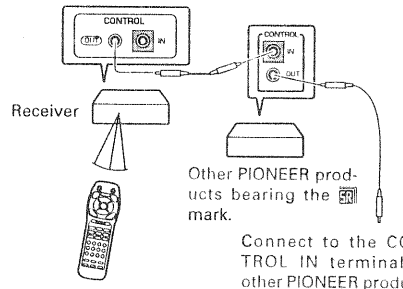


memo

- The remote control unit may not work if there is an obstacle between the remote control unit and this unit, or if the remote control unit is not directed towards the remote sensor of the main unit at the correct angle.
- The remote control unit may not work properly if strong light such as direct sunlight or fluorescent light is shining onto the main unit's remote sensor.
- The remote control unit may not work properly when this unit is used near a device emitting infrared rays, or when a remote control unit of another device which uses infrared rays is used.
  On the other hand, the use of this remote control unit may cause other devices to work improperly.
- When the operating range of this remote control unit becomes too short, replace the batteries.

Operating the remote control unit

By connecting a control cord (optional), other PIONEER products can be operated using this remote control unit via this unit. Direct the remote control unit towards the remote sensor of this unit.
The remote control signals are received by the remote sensor of this unit, and sent to the other devices via the CONTROL OUT terminal. By reading other manufacturers' preset codes or memorizing (learning) the remote control signals of other devices in this remote control unit, other manufacturers' devices can also be operated using this remote control unit.

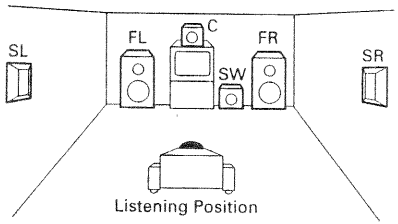


INSTALLATION

Installing speakers

To achieve the best surround effects, install speakers as shown in the following figure.
Install speakers firmly.

Installation Example



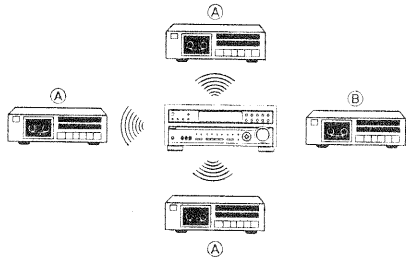
* In the above figure, F indicates front speakers, S indicates surround speakers, C indicates center speaker, SW indicates sub woofer, R indicates right, and L indicates left.

memo

- If installing the surround speakers far away from the front and center speakers, surround effects cannot be fully achieved.
- Installing speakers near the TV may cause interference such as the TV color to change. In such cases, use magnetically shielded speakers or install the speakers away from the TV.
- Install the left and right speakers at equal distance from the TV.
- Install the center speaker at the top, bottom, or behind the TV so that TV sound and images match.
- It is recommended to install the surround speakers slightly above ear level.

Installing the cassette deck

Installing the cassette deck in the following (A) positions in the figure may affect playback. It is recommended that it be installed in the (B) position.

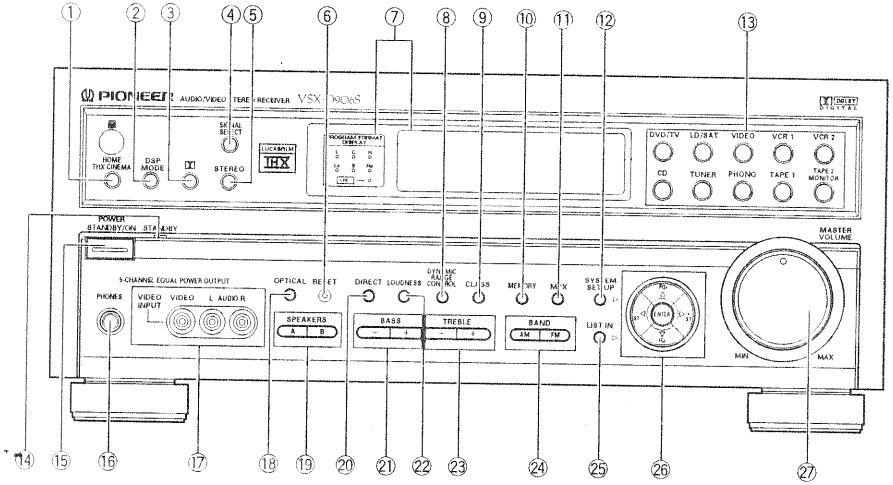


2. NAMES AND CONNECTIONS OF PARTS

NAMES OF PARTS

* The size of characters shown in the figure may differ from that on the actual product.

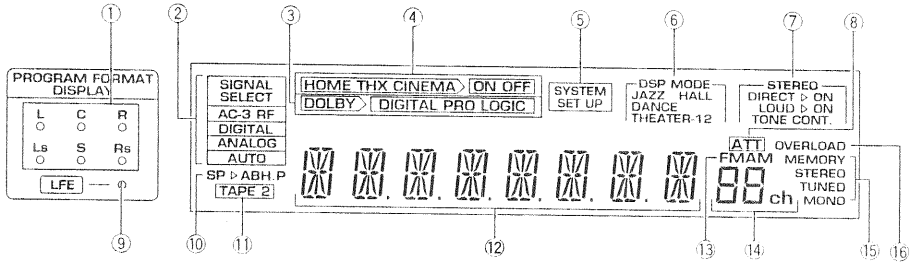
Front panel



① **HOME THX CINEMA button (P.34)**
② **DSP MODE button***NOTE **(P.32)**
③ **button (P.33)**
④ **SIGNAL SELECT button (P.35)**
⑤ **STEREO button (P.31)**
⑥ **RESET button (P.55)**
⑦ **Displays**
⑧ **DYNAMIC RANGE CONTROL button**
The volume is constantly controlled to maintain an even level and to make it possible to hear clearly even when the volume is set to a low level. (Works only when operating in DIGITAL mode.)
⑨ **CLASS button (P.39)**
⑩ **MEMORY button (P.39)**
⑪ **MPX button**
Use to switch the auto stereo/monaural mode for receiving FM broadcasts. When the received broadcast signal is weak, press this button to set the monaural mode.
⑫ **SYSTEM SET UP button (P.16~)**
⑬ **Function buttons (P.38~)**
⑭ **STANDBY indicator**
⑮ **POWER STANDBY/ON button**
⑯ **PHONES jack (Headphone terminal)**
⑰ **Video input terminals (P.13)**
Connect to a video camera, etc.
⑱ **OPTICAL button (P.36)**
⑲ **SPEAKERS A, B buttons**
ON/OFF switches for the A and B speaker systems.
⑳ **DIRECT button***NOTE
Use to play back sound without going through the tone control circuits. This button operates in stereo mode only.
㉑ **BASS –, + buttons***NOTE
Use to adjust tone. This button operates in stereo mode only.
㉒ **LOUDNESS button***NOTE
Press this button when the volume is low to raise the low and high frequency levels so that the sound can be heard more easily. This button operates in stereo mode only.
㉓ **TREBLE –, + buttons***NOTE
Use to adjust tone. This button operates in stereo mode only.
㉔ **AM, FM buttons (P.38)**
㉕ **LIST IN button (P.48~)**
㉖ **Select/Adjust buttons**
㉗ **MASTER VOLUME**

***NOTE**
These operation buttons do not function during AC-3 input.

Display



① **PROGRAM FORMAT DISPLAY**
When playing back in the Dolby Digital (AC-3) mode, the indicator of the channel set for the playback source lights.

② **SIGNAL SELECT indicators**
The input signal format currently selected will light .

③ **DOLBY DIGITAL and PRO LOGIC indicators**
"DOLBY" lights when the Dolby Surround mode is ON. There are two Dolby Surround modes-Dolby Digital (AC-3) and Dolby Pro Logic. "DOLBY" and "DIGITAL" light during Dolby Digital, and "DOLBY" and "PRO LOGIC" light when played back in Dolby Pro Logic.

④ **HOME THX CINEMA mode indicators**
Lights when HOME THX CINEMA mode is selected.

⑤ **SYSTEM SET UP indicator**
Lights when SYSTEM SET UP mode is selected.

⑥ **DSP MODE indicators**
Lights when DSP MODE is on and indicates the type selected.

⑦ **STEREO indicators**
Lights when STEREO mode is selected.

⑧ **ATT indicator**
Lights when ATT (input attenuator) is ON.

⑨ **LFE indicator**
[LFE] lights when the LFE (Low Frequency Effects) channel is set for the playback source with Dolby Digital. The LFE indicator also lights when LFE signals are input.

⑩ **Speakers A, B, H.P indicators**
The indicator will light up to show which speaker terminal (A or B) is selected. When using headphones, the "H.P" indicator will light up.
When using the headphone, speakers A and B are turned off.

⑪ **TAPE 2 indicator**
Lights when TAPE 2 MONITOR is ON.

⑫ **CHARACTER display**

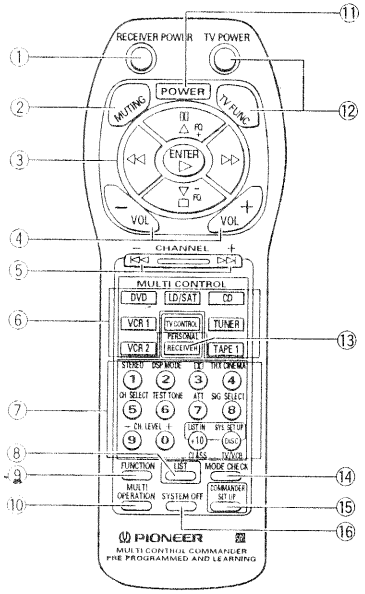
⑬ **FM, AM indicators**
The indicator of the band currently selected (FM/AM) lights.

⑭ **STATION display**
Indicates the station number currently selected.

⑮ **TUNER indicators**
MEMORY:
Lights when station memory is selected.
STEREO:
Lights when stereo broadcasts are received during auto stereo mode.
TUNED:
Lights when broadcasts are being received.
MONO:
Lights when the monaural mode is set using the MPX MODE button.

⑯ **OVERLOAD Indicator**
This indicator lights up whenever the analog input signal is of a strength sufficient to cause electrical overload.
When the indicator blinks, press the ATT button on the remote control unit to reduce the strength of the input signal.

Remote control unit



① **RECEIVER POWER button**

② **MUTING button**
Press to mute the volume.

③ **[When set to RECEIVER (OPERATIONS)]**
△,▽,◁,▷ ENTER (Select/Adjust)buttons
[When set to other than RECEIVER (OPERATIONS)]
II(Pause), □ (Stop), ◁◁(Rewind), ▷▷(Fast Forward), ▷ (Play) buttons

④ **VOL (–, +) buttons**

⑤ **[TV, VCR Operations]**
Selects the TV broadcast channel.
[CD, LD, DVD operations]
|◁◁, ▷▷| (Chapter/Track Search) buttons

⑥ **MULTI CONTROL function buttons**
Selects the function set on the receiver and changes the remote control operations to that function. Also, initiates the multi operation play function when used in conjunction with the ⑩ MULTI OPERATION button.

⑦ **Number/Receiver setting buttons**
[When setting RECEIVER (operations)]
STEREO: Switches the STEREO mode.
DSP MODE: Switches the DSP surround effects.
The DSP mode does not function during while a Dolby Digital (AC-3) program source is being played back.
DD : Switches the Dolby Surround mode.
THX CINEMA: Switches the THX mode.
CH. SELECT: Use to select the channel for which level settings are to be defined.
TEST TONE: When turned ON (while in system set up mode), volume balance adjustment signals are output in order from the speakers and can be adjusted.
ATT: Operates during ANALOG signal input. When turned ON when the sound is unstable due to excessive input levels, the input signal level drops so that the sound becomes less distorted.
SIG. SELECT: Use to select function LD or DVD input signals. (i.e. AC-3 RF, DIGITAL, etc.)
CH. LEVEL –, +: Use to adjust the level of the channel selected with the CH. SELECT button.
LIST IN: Use to switch to the list input screen when using the CD or tuner function.
SYSTEM SET UP: Used to enter system setup mode.
[TUNER Operations]
Number buttons: Use for setting the frequency value when the station call is selected or during direct access.
CLASS: Switches the CLASS number.
DISC: Use to enter Direct Access mode.
[VCR operations]
TV/VCR: Switches between TV/VCR.
[CD Operations]
DISC: Use to select the DISC number.

⑧ **LIST button**
Use to display the list screen when using the CD or tuner function.

⑨ **FUNCTION button**
Switches the function.

⑩ **MULTI OPERATION button**
Use to set the multi operation.

⑪ **POWER button**
Turns ON/OFF the power of devices other than this unit.

⑫ **TV buttons (P.46)**

⑬ **RECEIVER/PERSONAL button**
[When setting MULTI operations]
Press when setting to the personal mode using multi operations.
[When setting to other than multi operation]
Press this button when using the Number/Receiver buttons to specify receiver settings.

⑭ **MODE CHECK button (P.46)**

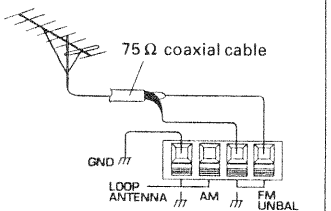
⑮ **COMMANDER SET UP button**
Use to control and learn operations of other manufacturers' equipment, and set multi operation functions.

⑯ **SYSTEM OFF button (P.30)**
Use to turn OFF the power of all equipment connected to the main unit.

CONNECTING DEVICES

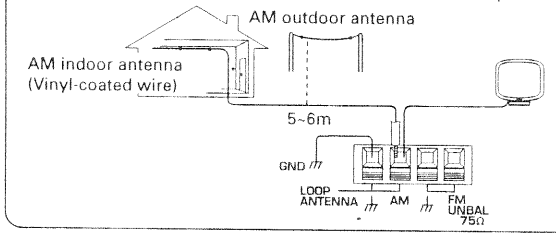
When connecting or changing equipment, be sure to turn OFF the POWER switch, and disconnect the power cord from the wall outlet.

■ For better reception of signals, use an FM external antenna.

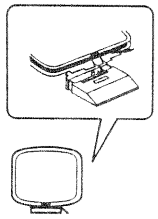


■ When AM broadcast reception is poor

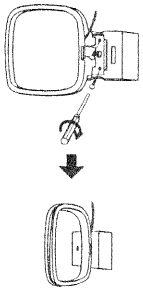
Connect a 5 to 6 meter long vinyl-coated wire to the AM antenna terminal. If possible draw horizontally outdoors to achieve better reception.



■ Assembling the AM loop antenna

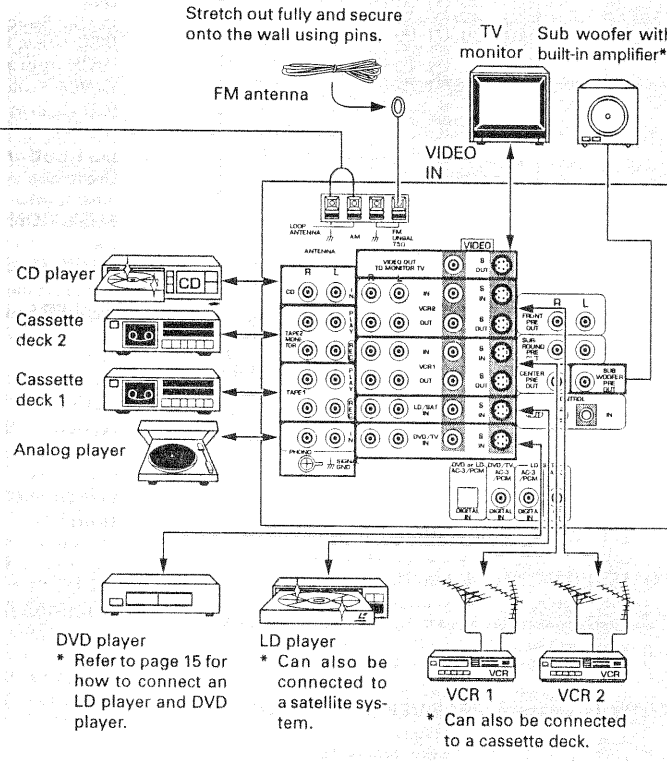


When attaching on a wall, etc.

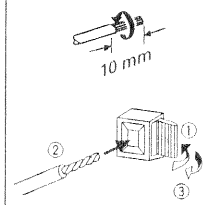


Face towards the direction with the best reception.

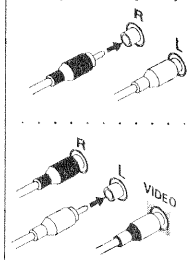
*1 The sub woofer can be connected in a different way. For details, refer to the instructions on the sub woofer.


Stretch out fully and secure onto the wall using pins.
TV monitor
Sub woofer with built-in amplifier*1
FM antenna
VIDEO IN
CD player
Cassette deck 2
Cassette deck 1
Analog player
DVD player
* Refer to page 15 for how to connect an LD player and DVD player.
LD player
* Can also be connected to a satellite system.
VCR 1
VCR 2
* Can also be connected to a cassette deck.

■ AM antenna terminal

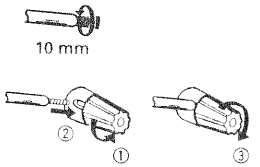


■ Input/output plugs

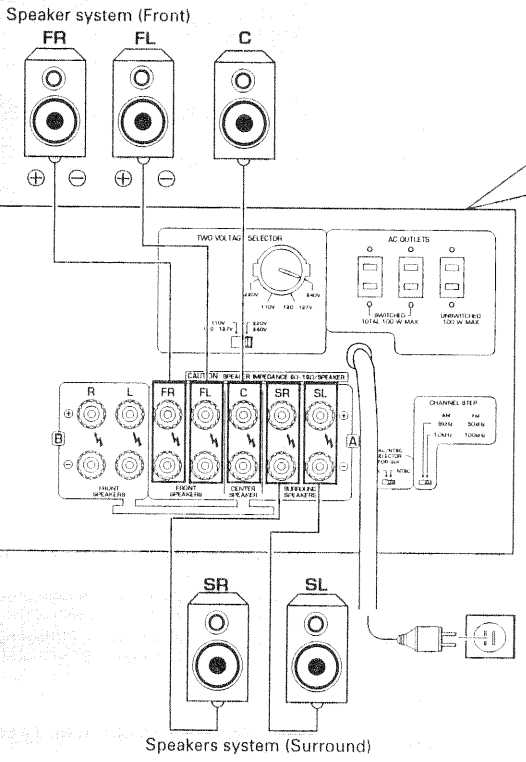


Connect the white plug to L, red plug to R, and yellow plug to VIDEO. Be sure to insert completely.

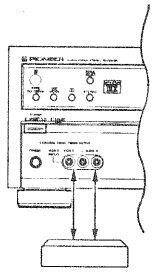
■ Speaker terminals



* The size of characters and terminal positions in the figures may differ from those on the actual product.



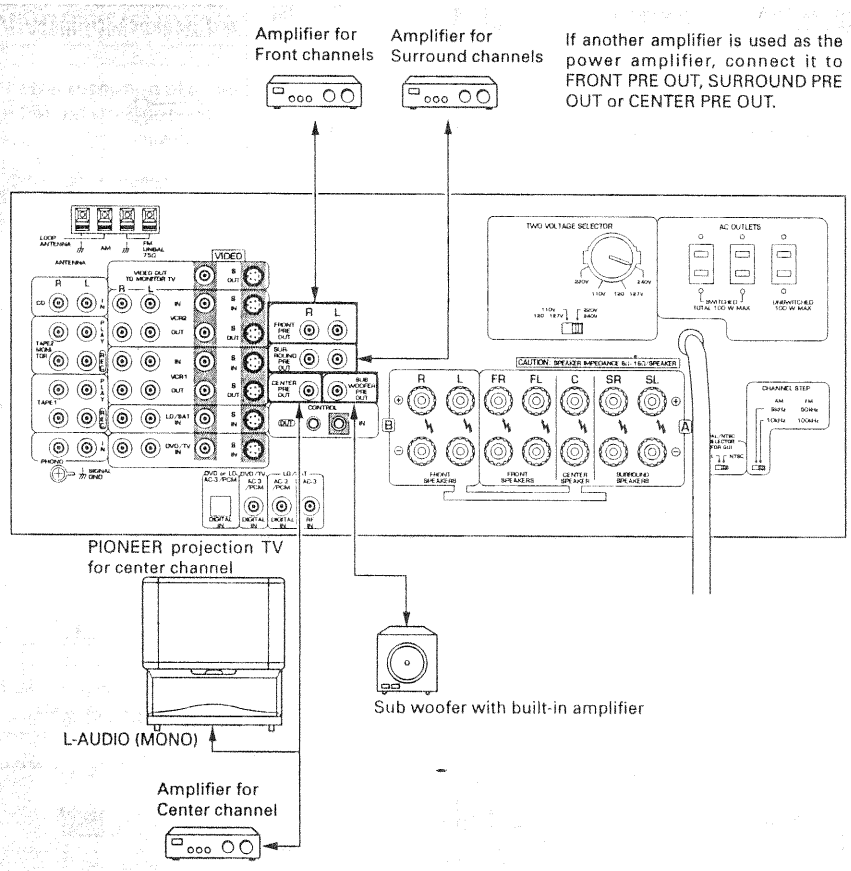
■ Front Panel



Video equipment such as a video camera, etc.

memo

- Use nominal impedances ranging from 6 Ω to 16 Ω for the speaker system.
- Sound is output from speakers connected to FR, FL, C, SR, or SL terminals if the SPEAKERS A button on the front panel is set to ON.
  If you want sound from speakers connected to the R and L terminals, set the SPEAKERS B button to ON.


Amplifier for Front channels
Amplifier for Surround channels
If another amplifier is used as the power amplifier, connect it to FRONT PRE OUT, SURROUND PRE OUT or CENTER PRE OUT.
PIONEER projection TV for center channel
Sub woofer with built-in amplifier
L-AUDIO (MONO)
Amplifier for Center channel

AC OUTLETS

[SWITCHED 100 W MAX]

Power supplied through these outlets is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

[UNSWITCHED 100 W MAX]

Power flows continually to this outlet, regardless of whether the receiver is switched ON or OFF. Electrical power consumption of the connected equipment should not exceed 100 W.
The equipment should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.

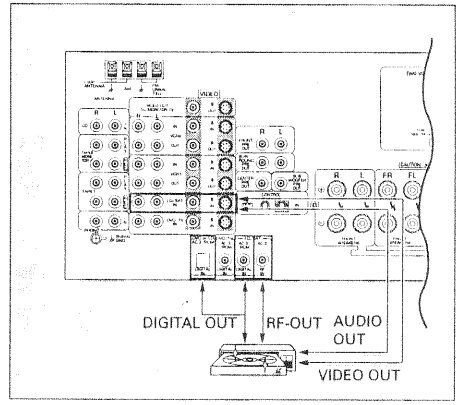
memo

- This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.
- Do not connect appliances with high power consumption such as heaters, irons, or television sets to these AC OUTLETS in order to avoid overheating and fire risk. This can also cause the receiver to malfunction.

CAUTION:
DO NOT CONNECT A MONITOR OR TV SET.

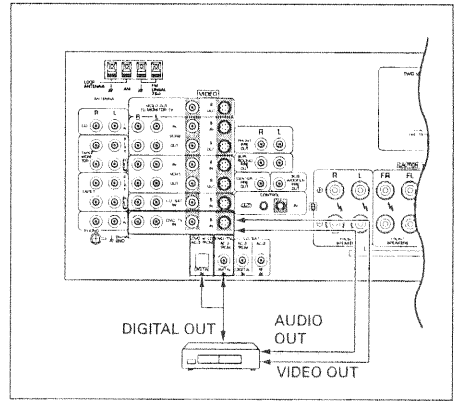
Connecting a DVD LD player, LD player

Connect the DVD LD player or LD player with AC-3 RF OUT as shown below.



Connecting a DVD player

Connect the DVD player as shown below.



memo

- The signals input from the digital input or radio-frequency input channels are not output to the REC output channel.
- When the OPTICAL input terminal (DVD or LD AC-3/PCM DIGITAL IN) is used, it is necessary to set by using the OPTICAL button. Refer to page 36 for details.

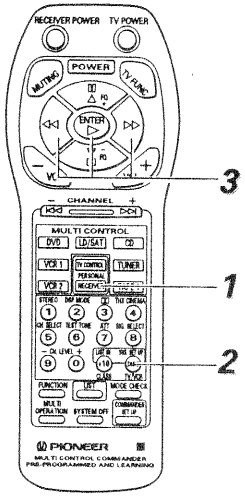
3. INITIAL SET UP

GUI (Graphical User Interface)

The graphical user interface is a system whereby you can adjust your surround sound parameters by use of your television screen. Just align the cursor ( ) over the control buttons on the screen and press the ENTER button to press a button and perform the corresponding operation.

SYSTEM SET UP

With the SYSTEM SET UP operation, the optimum sound effects can be reproduced within your home theater system. Always be sure to specify the desired settings when you first use the system or whenever you change the layout or composition of your speaker system.



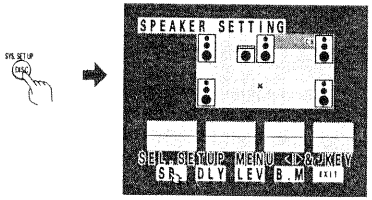
memo

Turn on the power to the receiver and the television.

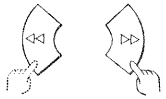
1. **Select the RECEIVER button to enable RECEIVER operation.**

2. **Display the SYSTEM SET UP MENU on the screen.**

* Normal operation is returned when the SYS. SET UP button is pressed again.

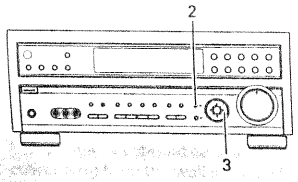


3. **Select the SET UP MENU.**



- SP. (SPEAKER SETTING)
- DLY (INDIVIDUAL CH DELAY)
- LEV. (CHANNEL LEVEL)
- B.M (BASS MANAGER)
- EXIT

Align the cursor over the setting mode for which you wish to specify settings and press the ENTER button. For instructions on how to specify individual settings, see page 17 to 22.



■ Specifying settings without using the remote control

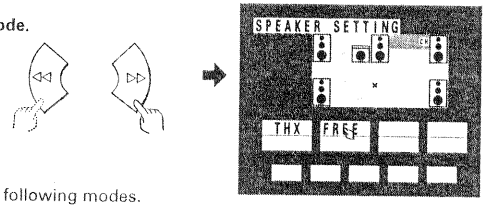
It is also possible to perform the same types of operations as those performed with the remote control by using the main unit.

① SPEAKER SETTING

Used to specify whether or not your system is equipped with additional speakers and to specify the size of any speakers being used.

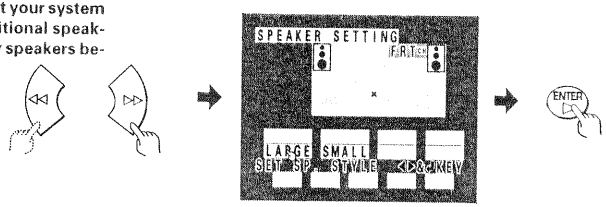
1. **Select the SPEAKER SETTING.** ➡ Refer to "SYSTEM SET UP" (page 16).

2. **Select the setting mode.**



Select one of the two following modes.
THX: Speaker settings will automatically be set to the recommended THX settings (FRONT, CENTER, SURROUND: Small, SUB-WOOFER: Yes). (Go to step 4.)
FREE: Used to specify speaker settings one speaker at a time. (Go to step 3.)

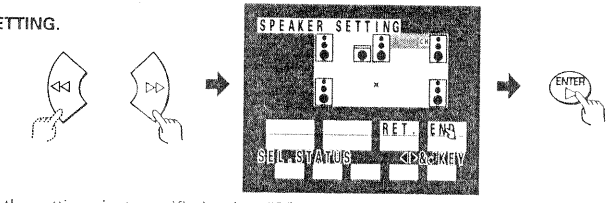
3. **Specify whether or not your system is equipped with additional speakers and the size of any speakers being used.**



FRONT channel (Large, Small)
↓
CENTER channel (Large, Small, No)
↓
SURROUND channel (Large, Small, No)
↓
SUB WOOFER channel (No, Yes)

Note that when the FRONT channel setting has been set to 'Small', it will be impossible to specify 'Large' for the CENTER channel and the SURROUND channel or to specify 'No' for the SUB WOOFER channel.

4. **Quit the SPEAKER SETTING.**



If you wish to change the settings just specified, select "RET." and press the ENTER button.
To return to the SYSTEM SET UP MENU screen, select "END" and press the ENTER button.

memo

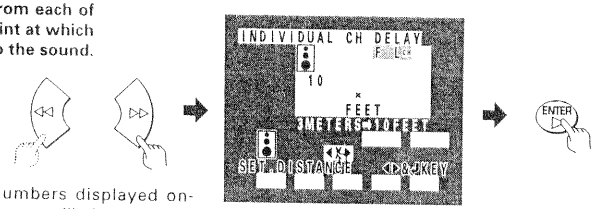
Initially, the speakers are set as follows in the FREE mode.
FRONT: Large, CENTER: Large, SURROUND: Large, SUB WOOFER: Yes

② INDIVIDUAL CH DELAY

Enter the distance from each speaker to the listening point in feet, and the system will automatically adjust and correct the time it takes for sound to travel from the speakers.

1. **Select the INDIVIDUAL CH DELAY.** ➡ Refer to "SYSTEM SET UP" (page 16).

2. **Specify the distance from each of the speakers to the point at which you will be listening to the sound.**

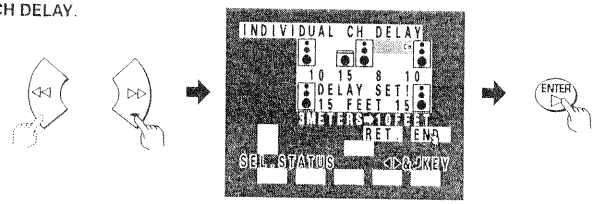


Numbers displayed on-screen will change in accordance with the specified distance.

The number indicated on the display is shown in feet. 1 foot corresponds to approx. 0.3 m (one step). (Sound takes about 1 msec to travel 1 foot.) Set the distance to each speaker in feet.

FRONT LEFT channel
↓
CENTER channel
↓
FRONT RIGHT channel
↓
SURROUND RIGHT channel
↓
SURROUND LEFT channel
↓
SUB WOOFER channel

3. **Quit the INDIVIDUAL CH DELAY.**



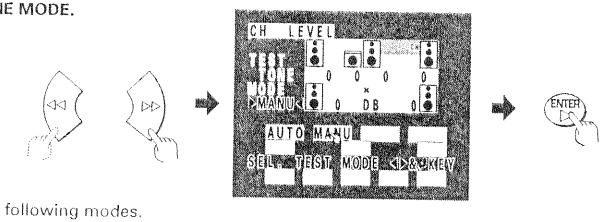
If you wish to change the settings just specified, select "RET." and press the ENTER button.
To return to the SYSTEM SET UP MENU screen, select "END" and press the ENTER button.

③ CHANNEL LEVEL

The CHANNEL LEVEL mode is used to obtain the optimum balance of sound at the listening point.
Listen to the test tone and adjust the sound level of each of the speakers until the sound from each speaker is equal.

1. **Select the CHANNEL LEVEL.** ➡ Refer to "SYSTEM SET UP" (page 16).

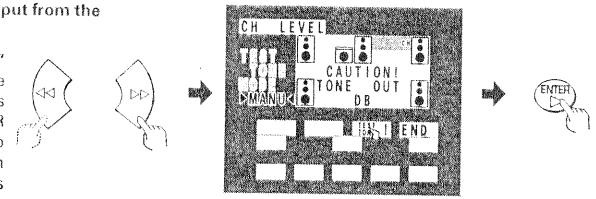
2. **Select the TEST TONE MODE.**



Select one of the two following modes.
AUTO: A test tone will be generated from each of the speakers in sequential order. While a test tone is being output from the speaker for which you wish to specify volume settings, press the Select/Adjust (◁ and ▷) buttons to adjust the speaker output level.
MANU: Used to specify channel levels one at a time.

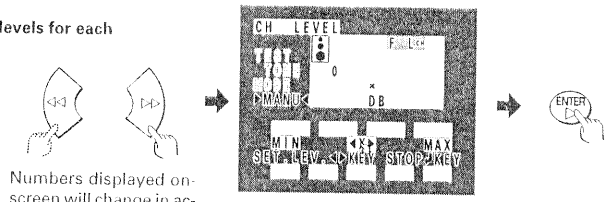
3. **A test tone will be output from the speaker.**

* When "TEST TONE" is selected and the ENTER button is pressed, the MASTER VOLUME rotates to the reference position and the TEST TONE is generated.



If you wish to quit, select "END" and press the ENTER button.
If you wish to quit while a TEST TONE is being output, press the SYS. SET UP button.

4. **Specify the volume levels for each of the channels.**

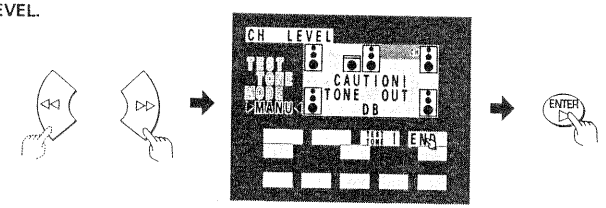


Numbers displayed on-screen will change in accordance with the specified volume.

FRONT LEFT channel
↓
CENTER channel
↓
FRONT RIGHT channel
↓
SURROUND RIGHT channel
↓
SURROUND LEFT channel
↓
SUB WOOFER channel

* If you select the AUTO TEST TONE MODE, set the volume for all the channels before pressing ENTER.

5. Quit the CHANNEL LEVEL.



If you wish to change the settings just specified, select "TEST TONE" and press the ENTER button.
To return to the SYSTEM SET UP MENU screen, select "END" and press the ENTER button.

memo

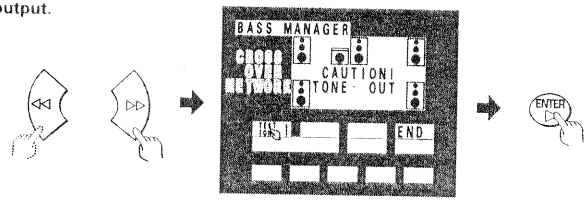
- Note that the test tone is output at a high volume level.
- Initially, the channel levels are set to 0 dB.
- To insure accuracy of the channel level, it is advised to utilize a Sound Pressure Level (SPL) meter and to adjust each channel to 75 dB SPL.
- Note that the volume of the sound from the sub-woofer tends to sound lower than it actually is.
- If you wish to display the current CHANNEL settings, switch to the SYSTEM SET UP menu display screen, and align the cursor over "LEV".
  Then press the CH. LEVEL button on the remote control unit to display the current CHANNEL LEVEL settings on the television screen.

④ BASS MANAGER

Dolby Digital signals are composed of signals heavily concentrated in ultra-low bass tones. Limit settings must be specified to prevent signals which might exceed the ability of your system to play back ultra-low bass tones.
While listening to the test tone, specify the limit setting. This will place a limit on the output of the speakers used for bass output (The maximum limit setting is –24 dB.). Also specify the CROSSOVER NETWORK settings.

1. Select the BASS MANAGER. ➡ Refer to "SYSTEM SET UP" (page 16).

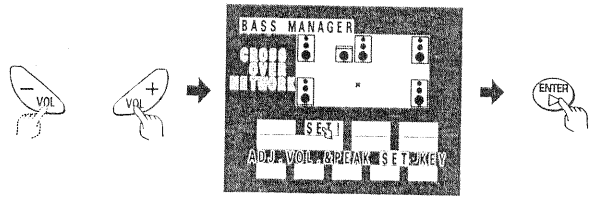
2. A TEST TONE will be output.



If you wish to quit, select "END" and press the ENTER button.
If you wish to quit while a test tone is being output, press the SYSTEM SET UP button.

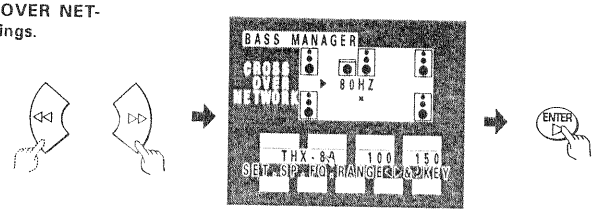
3. Specify the bass limit.

* A test tone will be output from the bass output channel for which settings were specified in the SPEAKER SETTING.



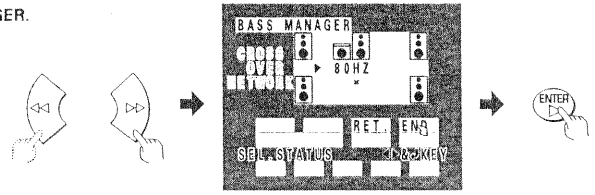
Gradually increase the volume and press the ENTER button just before distortion begins to appear in the test tone.

4. Specify the CROSSOVER NETWORK frequency settings.



When the bass range of speakers set at SMALL are divided to other speakers with a bass function in the ① SPEAKER setting mode, sets how much sound (below how many Hz) is to be divided to the other speakers during playback.

5. Quit the BASS MANAGER.



If you wish to change the settings just specified, select "RET." and press the ENTER button.
To return to the SYSTEM SET UP MENU screen, select "END" and press the ENTER button.

memo

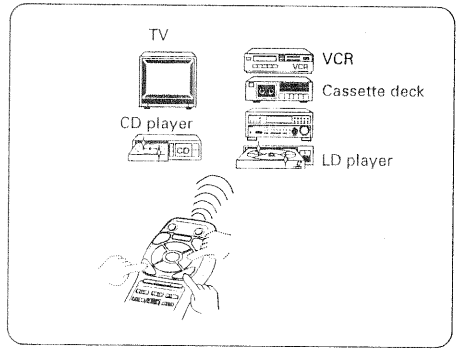
- The recommended CROSSOVER NETWORK frequency when operating in THX mode is 80 Hz.
- Initially, the CROSSOVER NETWORK frequency is set to 80 Hz.

COMMANDER SET UP (remote control unit only)

With the provided remote control unit, the following operations can easily be performed.

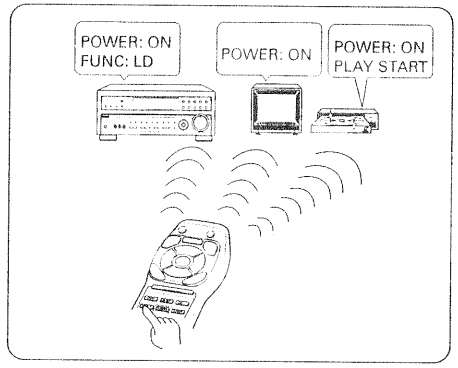
■ Control of other devices

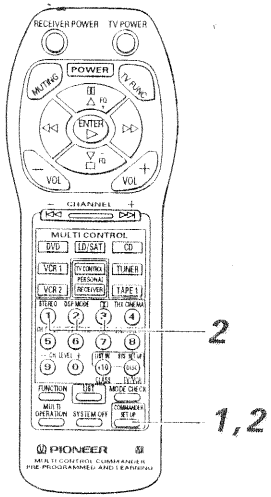
Your PIONEER products and other manufacturers' equipment (VCR, TV, LD player, CD player, etc.) can be remote controlled. (This requires the learning and setting of the remote control codes of other manufacturers' products.)



■ Multi Operation

Performing multi operation settings using this unit's remote control enables several devices to be operated easily.

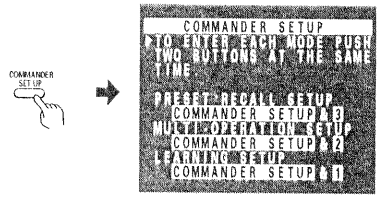




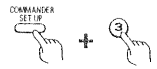
memo

Turn on the power to the receiver and the television.

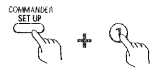
1. **Set the COMMANDER SET UP mode.**



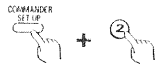
2. **Select the setting mode.**



PRESET RECALL SET UP mode (P. 24)



LEARNING SET UP mode (P. 26)

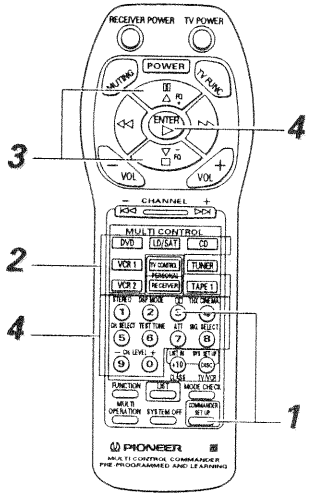


MULTI OPERATION SET UP mode (P. 27)

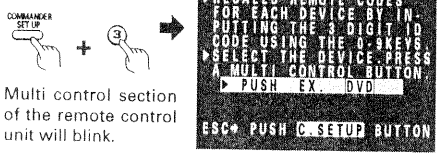
To quit the COMMANDER SET UP mode, press the COMMANDER SET UP button once more.

① PRESET RECALL SET UP mode

The remote control unit can be used to operate your PIONEER products and other manufacturers' audio/video equipment (VCR, TV, LD player, CD player, etc.).
Perform the following procedure to enable operation of other manufacturers' equipment (Recalling the code).

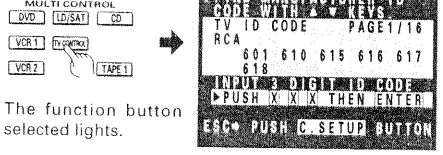


1. Select the PRESET RECALL SET UP mode.


COMMANDER SET UP
3
PRESET RECALL SETUP
▶RECALLS REMOTE CODES FOR EACH DEVICE BY IN-
PUTTING THE 3 DIGIT ID CODE USING THE 0-9KEYS.
▶SELECT THE DEVICE PRESS A MULTI CONTROL BUTTON
▶ PUSH EX. DVD
ESC◆ PUSH C.SETUP BUTTON

* Multi control section of the remote control unit will blink.

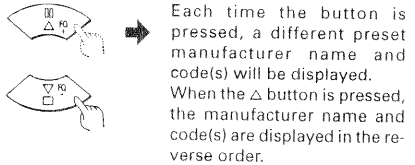
2. Select the function to be set.



* The function button selected lights.

The name of the manufacturer and the manufacturer code(s) will be displayed on-screen.

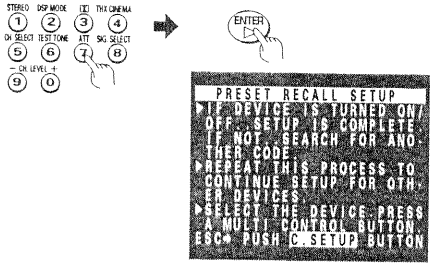
3. Select the manufacturer name and code.



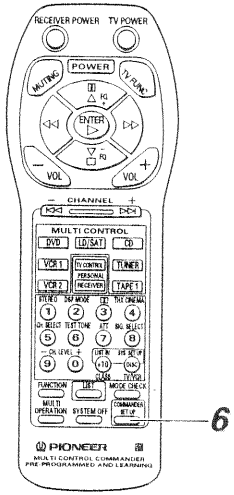
Each time the button is pressed, a different preset manufacturer name and code(s) will be displayed.
When the △ button is pressed, the manufacturer name and code(s) are displayed in the reverse order.

4. Point the remote control unit towards the device to be operated, and input the three-digit code number displayed in step 3.

* Refer to the LIST OF MANUFACTURER CODES on page 57.


ENTER
PRESET RECALL SETUP
▶IF DEVICE IS TURNED ON/OFF, SETUP IS COMPLETE. IF NOT, SEARCH FOR ANOTHER CODE
▶REPEAT THIS PROCESS TO CONTINUE SETUP FOR OTHER DEVICES
▶SELECT THE DEVICE PRESS A MULTI CONTROL BUTTON
ESC◆ PUSH C.SETUP BUTTON

When a three digit code number is input, the power ON/OFF signal will be output from the remote control unit. If the power of the device turns ON or OFF according to this signal, it indicates that the device has been set properly. If the power does not turn ON/OFF, input another code or use the learn function.

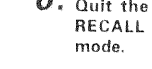


■ When there are several manufacturer codes for one manufacturer

Some manufacturers use several remote control signals. In such cases, the device may not operate even if the manufacturer code displayed at the beginning is input. If this happens, enter a different for that manufacturer code.

5. Repeat steps 2 to 4, and set other functions.

6. Quit the PRESET RECALL SET UP mode.



Returns to normal operations.

* Multi control section of the remote control unit will go off.

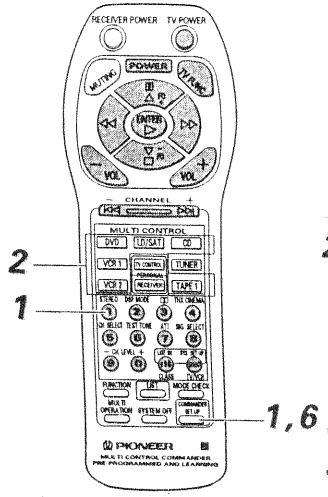
memo

- When operating a PIONEER'S DVD/LD player with the LD/SAT function, set the manufacturer code to "102" in the preset mode.
- The devices can be set to each function button are as below:
  - DVD : DVD or TV
  - LD/SAT : LD or SAT
  - CD : CD
  - VCR 1 : VCR
  - VCR 2 : VCR
  - TAPE 1 : TAPE
  - TV CONTROL : TV or CATV

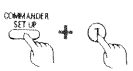
② LEARNING SET UP mode

If your equipment does not operate in the preset mode, you can learn its remote control signals so that it can be operated. If set properly in the preset mode, remote control signals of additional operations can be set by learning (those not shown on pages 43 to 46).

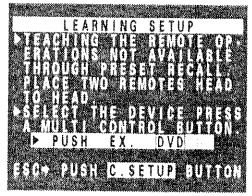
Take the remote control unit for which you wish to perform learning setup and perform the following operations.



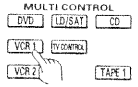
1. Select the LEARNING SET UP mode.



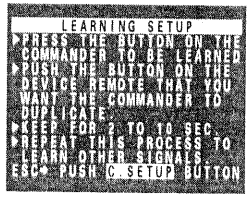
* Multi control section of the remote control unit will blink.


LEARNING SETUP
▶TEACHING THE REMOTE OPERATIONS NOT AVAILABLE THROUGH PRESET RECALL, PLACE TWO REMOTES HEAD TO HEAD.
▶SELECT THE DEVICE PRESS A MULTI CONTROL BUTTON.
▶ PUSH EX. DVD
ESC▶ PUSH C.SETUP BUTTON

2. Select the function to be learned.



* Only the multi control button selected blinks.


LEARNING SETUP
▶PRESS THE BUTTON ON THE COMMANDER TO BE LEARNED
▶PUSH THE BUTTON ON THE DEVICE REMOTE THAT YOU WANT THE COMMANDER TO DUPLICATE.
▶KEEP FOR 2 TO 10 SEC.
▶REPEAT THIS PROCESS TO LEARN OTHER SIGNALS.
ESC▶ PUSH C.SETUP BUTTON

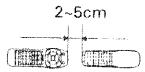
3. Select the button of the function to be learned on this remote control unit.

* Select from the gray buttons in the left figure of the remote control unit.

The remote control unit is ready to memorize the operation in the selected button.

* The multi control button of the remote control unit stops blinking but remains light.

4. Face the remote control units at each other. Press the button of the operation of the other manufacturer's device to be learned. (Press until the multi control button blinks.)



* When learned, the multi control button of the remote control unit starts blinking.

5. Repeat steps 2 to 4, and learn other required functions.

6. Quit the LEARNING SET UP mode.

Return to normal operations.

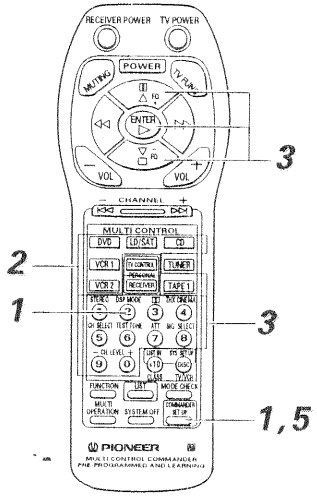
* All multi control buttons will no longer illuminate.

memo

- The TV POWER, TV FUNC, button and VOL – and + buttons can only be used for learning when TV CONTROL is selected.
- When TV CONTROL has been selected, memorize the same remote control signal into both TV POWER and POWER.

③ MULTI OPERATION SET UP mode

A string of commands (e.g. power) can be sent to your equipment by using the MULTI OPERATION button(s) of this remote control.

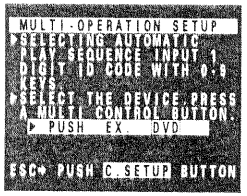


memo

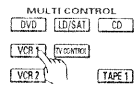
- For the DVD player, CD player, VCR 1, VCR 2 and cassette deck the PLAY signals are output from the remote control unit.

1. Select the MULTI OPERATION SET UP mode.

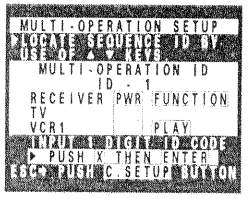
* Multi control section of the remote control unit blinks.


MULTI-OPERATION SETUP
▶SELECTING AUTOMATIC PLAY SEQUENCE INPUT 1 DIGIT ID CODE WITH 0-9 KEYS
▶SELECT THE DEVICE PRESS A MULTI CONTROL BUTTON.
▶ PUSH EX. DVD
ESC▶ PUSH C.SETUP BUTTON

2. Select the desired function.



* Only the multi control button selected lights.



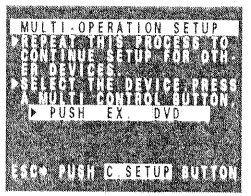
3. Select the ID code of the operation for which you wish to specify settings.

Set the ID code number.

Each time you press the key, a different ID code and operation description will be displayed. Pressing the up or △ key causes ID codes and operation descriptions to be displayed in reverse sequence.

* Multi control section of the remote control unit blinks.

4. To continue settings, repeat steps 2 and 3, and set each multi operation function.


MULTI-OPERATION SETUP
▶REPEAT THIS PROCESS TO CONTINUE SETUP FOR OTHER DEVICES.
▶SELECT THE DEVICE PRESS A MULTI CONTROL BUTTON.
▶ PUSH EX. DVD
ESC▶ PUSH C.SETUP BUTTON

5. Quit the MULTI OPERATION mode.

Return to normal operations.

* Multi control section will go off.

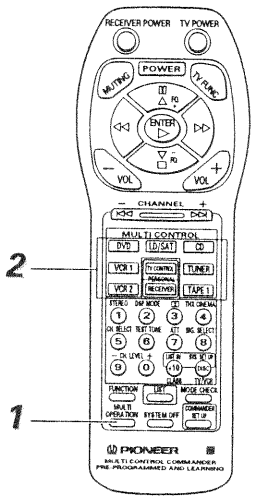
■ Multi Operation Table

ID Number	RECEIVER POWER	TV POWER	SELECTED DEVICE POWER	►
1	YES →	NO →	NO →	YES
2	YES →	NO →	YES →	YES
3	YES →	YES →	NO →	YES
4	YES →	YES →	YES →	YES

YES: Activated NO: Not activated

PERFORMING REMOTE-CONTROL FUNCTIONS SPECIFIED

① Performing Multi Operation



1. Enter the multi operation mode. → All multi control buttons of the remote control unit blink.

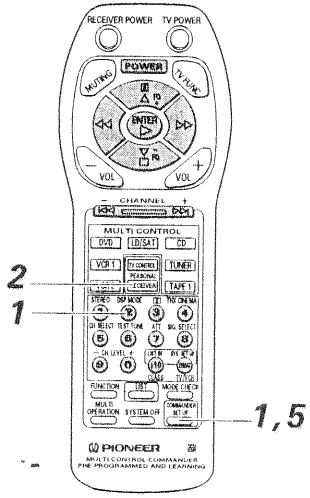
2. Select the desired function. → The power of the receiver is turned ON, the function switches, and the power of the selected device turns ON/OFF according to the settings on page 27. (Some devices may start playback after this, such as a DVD player, CD player, LD player, VCR 1, VCR 2 and cassette deck.)

memo

The power of this unit does not turn on when TV CONTROL is selected.

② Setting the Multi Operation/Personal Mode

Up to 10 signals can be programmed to send out a string of command. These can be a combination of those commands from preset or learning functions.
The remote control signals of the shaded buttons in the following diagram can be used for this function.



1. Set the multi operation mode. → Press ② while pressing the COMMANDER SET UP button.

2. Set the personal mode.

3. Set the functions to be learned in order. Example: TV CONTRO → POWER → LD/SAT → POWER . . .

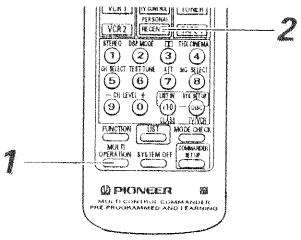
4. Repeat step 3, and memorize the remote control signals (up to 10).

5. Quit the multi operation (personal mode). → Return to normal operations.

memo

When 10 signals are memorized, the setting mode is automatically quit and the unit returns to normal operation.

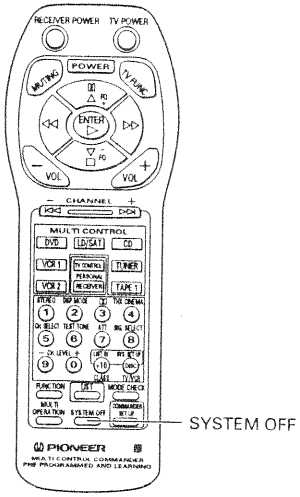
③ Operating the Personal Mode



1. Set the multi operation mode.

2. Set the multi operation mode (personal mode). → Example: Turns ON the power of the unit, TV and LD player and plays the LD player.

④ Turning OFF the power of the system



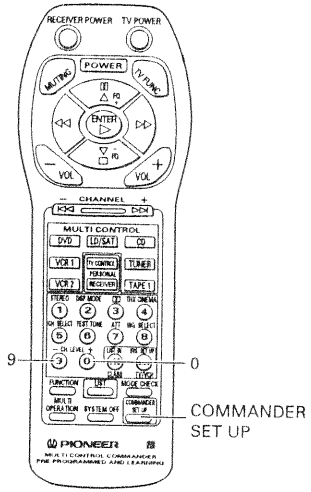
Turn OFF the power of the components in the system (including receiver). SYSTEM OFF ➡ Devices will turn OFF according to the multi operation settings (last mode used).

Example:
When you are using the remote control unit for VCR 1 operation, and VCR 1 is set to "4" in the Multi Operation on page 27, this unit, TV and VCR 1 will turn OFF by this operation.

memo

- If some devices for those unit have been turned OFF, using SYSTEM OFF will turn ON the power.
- All the PIONEER products will turn OFF, regardless of multi operation mode.

⑤ Canceling remote control settings



■ Cancels all multi operation settings that have been set or learned.

Cancel the setting. COMMANDER SET UP + ⑨ ➡ All multi control buttons of the remote control will blink. After blinking three times, all settings will be canceled.

While pressing the COMMANDER SET UP button, press ⑨ for more than 3 seconds.

■ Erasing the settings which have been learned.

Erase the learned contents. COMMANDER SET UP + ⑨ ➡ All multi control buttons of the remote control will blink. After blinking three times, learned settings will be erased.

While pressing the COMMANDER SET UP button, press ⑨ for more than 3 seconds.

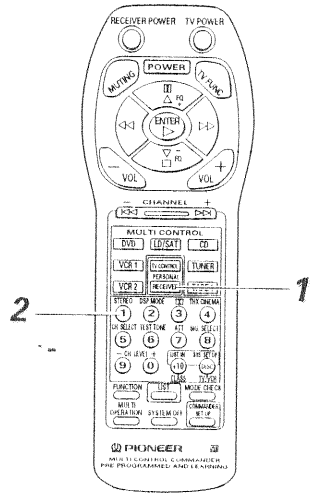
4. OPERATIONS

SELECTING THE SOUND REPLAY MODES

Set the Replay modes to optimize sound playback.

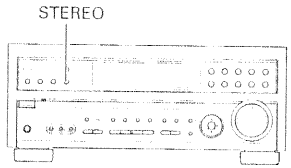
STEREO mode

Pressing the STEREO button causes the receiver to switch to STEREO mode, thus making it possible to use the DIRECT, LOUDNESS, and TONE CONTROL features. (Operating with the main unit only.)



1. **Select the RECEIVER button to enable RECEIVER operation.** PERSONAL RECEIVER

2. **Used to switch to STEREO mode.** STEREO ➡ LD/SAT



■ **Operating with the main unit**
Press the STEREO button.

memo

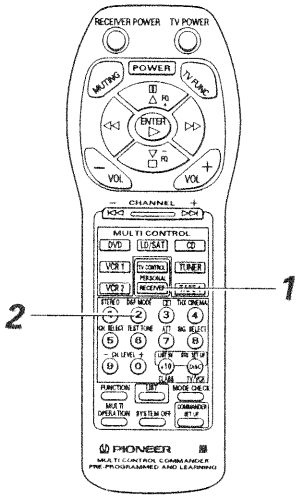
- When a Dolby Digital (AC-3) program source is input, the PROGRAM FORMAT DISPLAY blinks. At this time, select the Dolby Surround mode or HOME THX CINEMA mode.
- THX is only used for a movie that was originally made for the movie theater.

SURROUND mode

memo

- Note that speaker A and speaker B cannot both be set on when operating in SURROUND mode.
- If you do select SURROUND mode operation with both speaker A and speaker B on, the system will automatically switch to speaker A operation.
- When a Dolby Digital Soundtrack is played back in the Dolby mode or Home THX Cinema mode, the Dialog Normalization mode of the receiver is activated. The Dialog Normalization, a standard function of Dolby Digital, regulates the dialog level of the soundtrack in relation to the other channels. The receiver is set to a preset level (a standard setting that in most cases will be exactly what is recorded on the software). However, if this preset level does not match the level on the software, then an indication will appear in the display area. This indication will advise you of the difference between the Dialog Normalization and the THX reference level, and advise you how much to adjust the volume control to insure the playback is at the THX Reference Level.

① DSP MODE



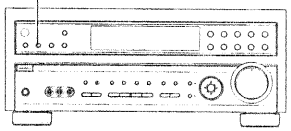
1. Select the RECEIVER button to enable RECEIVER operation.

2. Used to switch to DSP MODE.

HALL → JAZZ → DANCE
THEATER 2 ← THEATER 1

Refer to page 53 for the characteristics of the surround effects.

DSP MODE



■ Operating with the main unit

Press the DSP MODE button.

Each time it is pressed, the surround effects change as follows.

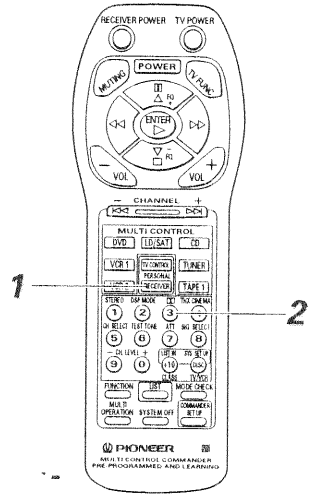
HALL → JAZZ → DANCE
THEATER 2 ← THEATER 1

memo

- When a Dolby Digital (AC-3) program source is input, the PROGRAM FORMAT DISPLAY blinks. At this time, select the Dolby Surround mode or HOME THX CINEMA mode.
- THX is only used for a movie that was originally made for the movie theater.

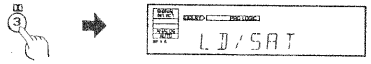
② Dolby Surround mode

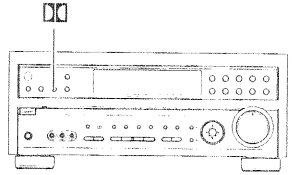
When Dolby Surround mode is ON, the Dolby Pro Logic Surround and Dolby Digital (AC-3) are automatically switched according to the input signal, and playback is performed.



1. Select the RECEIVER button to enable RECEIVER operation.

2. Used to switch to Dolby Surround mode.





■ Operating with the main unit

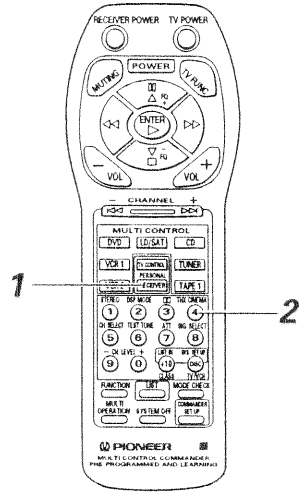
Press the ▯▯ button.

memo

When connecting an LD player or LD/DVD player with the AC-3 RF output as shown in the figure on page 15, and playing back an LD or DVD disc in ▯▯ DIGITAL, the unit is switched to Dolby Digital (AC-3) automatically.

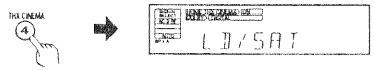
③ HOME THX CINEMA mode

When HOME THX CINEMA mode is ON, the Dolby Pro Logic Surround and Dolby Digital (AC-3) are automatically switched according to the input signal, and playback is performed.



1. Select the RECEIVER button to enable RECEIVER operation.

2. Used to switch to THX CINEMA mode.



HOME THX CINEMA

■ Operating with the main unit

Press the HOME THX CINEMA button.

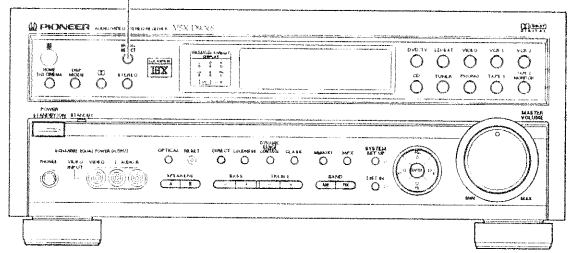
memo

THX is only used for a movie that was originally made for the movie theater.

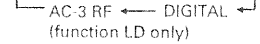
SWITCHING THE INPUT SIGNAL

The functions DVD and LD have a digital input terminal and AC-3 RF input terminal (LD player only) in addition to the analog input terminal. When the input terminals are connected to the DVD player and LD player output terminals, several input signals will be sent from each player. Use the SIGNAL SELECT button to select the input signal. Normally when set to "AUTO", the SIGNAL SELECT mode will automatically change to the best signal choice.

SIGNAL SELECT



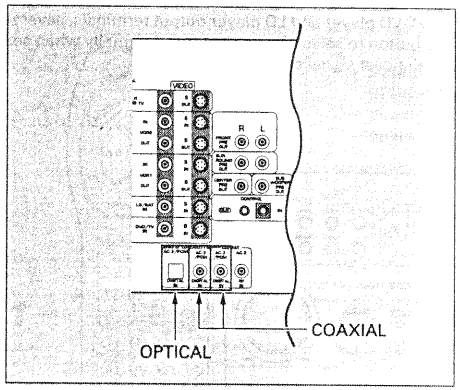
Switch according to the input signal format.



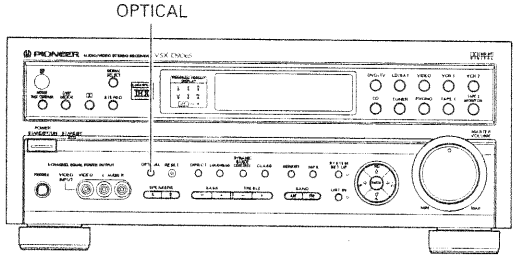
memo

- When set to "AUTO", and several signals such as analog, digital, and AC-3 RF are preset, the signals with priority are;
  AC-3 RF, digital, analog.
- When selecting functions other than the DVD and LD functions, the SIGNAL SELECT will be set to "ANALOG".

SWITCHING AC-3/PCM DIGITAL INPUT (OPTICAL BUTTON)

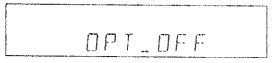


There are three systems for DIGITAL input terminal of this unit, such as COAXIAL (one system for LD and DVD each) and OPTICAL (one system for LD or DVD).
When only the OPTICAL is on board as a DIGITAL output terminal of using a player, connect the DIGITAL OUT (OPTICAL) terminal of a player and the OPTICAL terminal of this unit.
As the OPTICAL terminal of this unit is one system, it sets to use as a DIGITAL input terminal for either LD or DVD function with the OPTICAL button.
The OPTICAL terminal is set as a DIGITAL input terminal of the selected function in this operation.
In this case, the COAXIAL terminal of appropriate function has no effect.
To switch the input terminal as below.

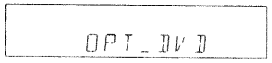


Set to use as an input terminal for either LD or DVD function.

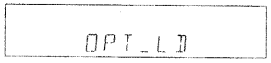
OPTICAL OFF
The OPTICAL is not used for a DIGITAL input terminal.



OPTICAL DVD
Set the OPTICAL as a DIGITAL input terminal for DVD.



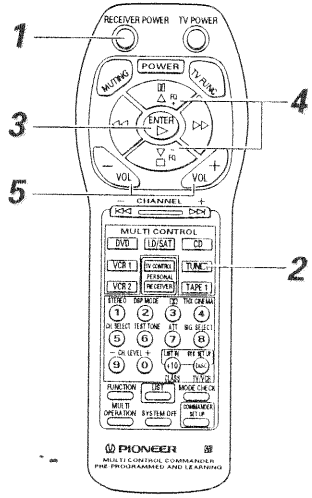
OPTICAL LD
Set the OPTICAL as a DIGITAL input terminal for LD.



memo

Initially, OPTICAL OFF is set.

LISTENING TO FM/AM BROADCASTS

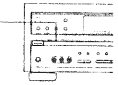


memo

Turn OFF the TAPE 2 MONITOR (the Indicator goes off).

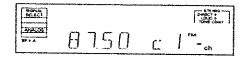
1. **Turn ON the power of the receiver.**

→ STANDBY indicator goes off.



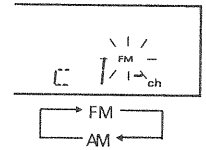
2. **Set the TUNER function.**

→

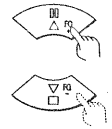


3. **Select the band (FM or AM).**

→

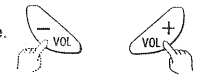


4. **Select the broadcast station.**



→ Refer to "selecting broadcast stations" below.

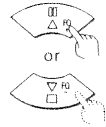
5. **Adjust the volume.**



Selecting broadcast stations

(For example, when selecting an FM broadcast in 0.1 MHz steps)

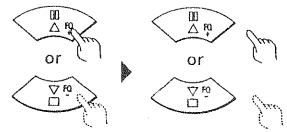
① Selecting step by step.



Press lightly and release.

87.50
87.60
87.70
⋮

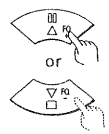
② Selecting automatically.



(Press and hold for approx. 1 second, then release)

87.50
↓
89.50
Stops when received.

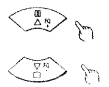
③ Selecting at high speed



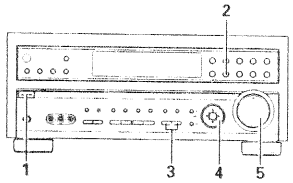
Press continuously

87.50
87.60
⋮
89.50

Stops when released.



OPERATIONS 4



■ Selecting a broadcast station using the main unit

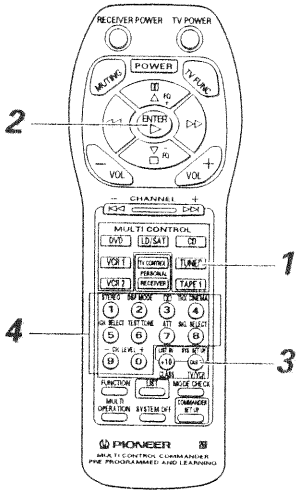
1. Press the POWER button.
2. Set the TUNER function.
3. Press the FM or AM button and select FM or AM broadcast.
4. Press the Select/Adjust (FQ +, FQ –) buttons and adjust to the desired broadcast station.
   The TUNED indicator lights up when a broadcast program is received.
5. Adjust the volume.

memo

- The TUNED indicator will not light when a broadcast station is too far away or when the broadcasting signal is weak.

Directly inputting the frequency [Direct Access (remote control unit only)]

A broadcast station (frequency) can be directly selected using the number buttons on the remote control unit.



memo Turn OFF the TAPE 2 MONITOR (the indicator goes off).

1. Set the TUNER function. → TUNER → 8750

2. Select the band (FM or AM). → ENTER → FM / AM

3. Set the direct access mode. → DIRECT → c 1

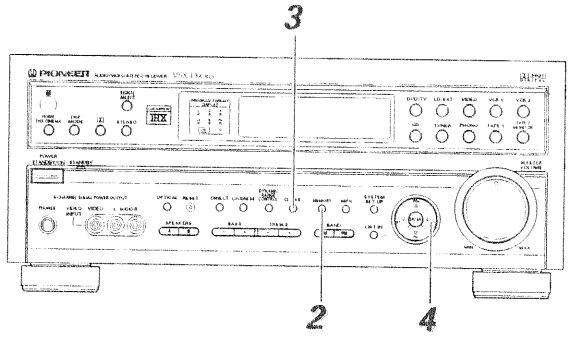
4. Select the broadcast station. Press the numbers of the frequency to be received in order. For example, to receive FM 106.00 MHz.

→ 1 → c 1
→ 0 → 10 c 1
→ 6 → 106 c 1
→ 0 → 1060 c 1
→ 0 → 10600 c 1

■ Canceling the frequency input

The frequency input can be canceled by pressing the DISC button again. Input the frequency again correctly.

Memorizing frequently used stations (main unit only)



memo
- The frequency received and MPX MODE (FM only) can be memorized.
- Up to 10 stations can be memorized in each of three classes.
- The GUI (Graphical User Interface) may be used to specify memory settings. (Refer to pages 47 and 48)

1. Receive the desired station. → Refer to "Listening to FM/AM Broadcasts" (Pages 37 and 38)

2. Set the MEMORY mode. → MEMORY → 9950 c 1

3. Select the desired class number. → CLASS → CLASS 1 → CLASS 2 → CLASS 3 →

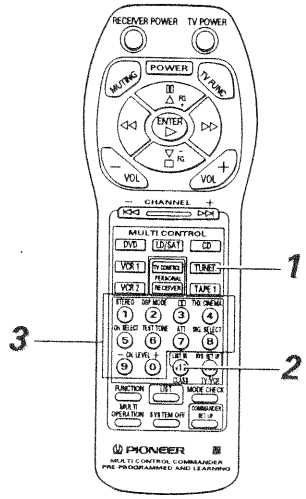
4. Select the desired station number. → 9950 c 1

Press the Select/Adjust (ST–, ST+) buttons to select the station number and press the ENTER button to memorize the selection. (Even if ENTER is not pressed, the selection will be automatically memorized in 5 seconds.)

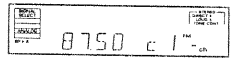
CLASS 1(1 ⟷ 10ch) → CLASS 2(1 ⟷ 10ch) → CLASS 3(1 ⟷ 10ch) →

Repeat steps 1 to 4 to memorize up to 30 stations.

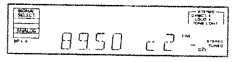
Listening to Memorized Stations



1. Set the TUNER function.



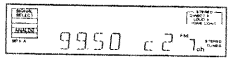
2. Select the CLASS number in which the desired station is memorized.



CLASS 1 → CLASS 2 → CLASS 3 →

3. Select the station number of the desired station.

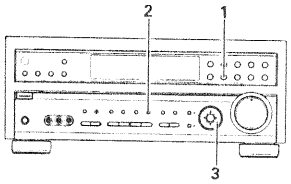
* To select channel 10, press ⓪.



Example:
When FM99.50 MHz has been memorized in channel 7 of CLASS 2.

memo

Use the CHANNEL +/– buttons to select other memorized station numbers.



■ Operating with the main unit

1. Press the TUNER button.
2. Press the CLASS button, and select the CLASS number in which the desired station has been memorized.
3. Press the Select/Adjust (ST –, ST +) buttons, and select the desired station number which has been memorized.

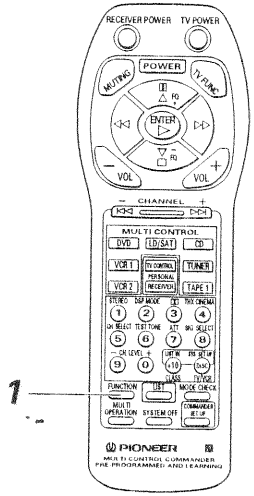
■ Last Station Memory

By turning ON the power and setting TUNER, the station set before the power was turned OFF will be received.

RECORDING

Set the format of the input signal to "ANALOG" referring to "Switching the Input Signal" on page 35.

Recording with TAPE 1 or TAPE 2

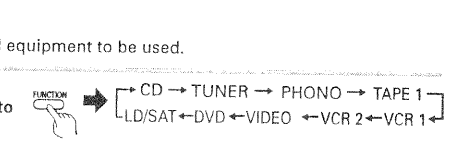


memo

Turn ON the power of all equipment to be used.

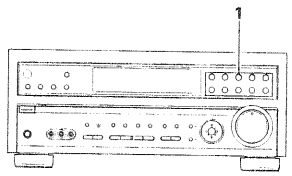
1. Select the source to be recorded.

* Except for PHONO and VIDEO, the sources can directly be selected using the MULTI CONTROL buttons.



2. Start recording with TAPE 1 or TAPE 2.

3. Play back the source to be recorded.



■ Operating with the main unit

1. Select the source to be recorded using the Function buttons.
2. Start recording with TAPE 1 or TAPE 2.
3. Play back the source to be recorded.

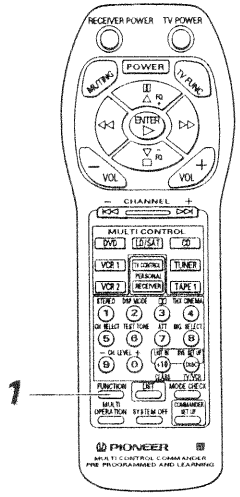
memo

The volume, tone, balance, and surround settings of this unit have no effect on the recording signal.

■ Recording Monitor

When recording with TAPE 2, if the recording device connected has a recording monitor function, turning ON the TAPE 2 MONITOR button will enable recording to be carried out simultaneously with playback monitoring (the TAPE 2 indicator lights).

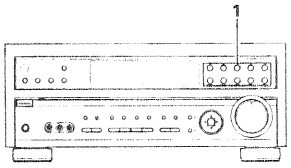
Recording with a VCR



1. Select the source to be recorded. FUNCTION → (CD) → (TUNER) → (PHONO) → (TAPE 1) → LD/SAT ← DVD ← VIDEO ← VCR 2 ← VCR 1

2. Start recording with VCR 1 or VCR 2.

3. Play back the source to be recorded.



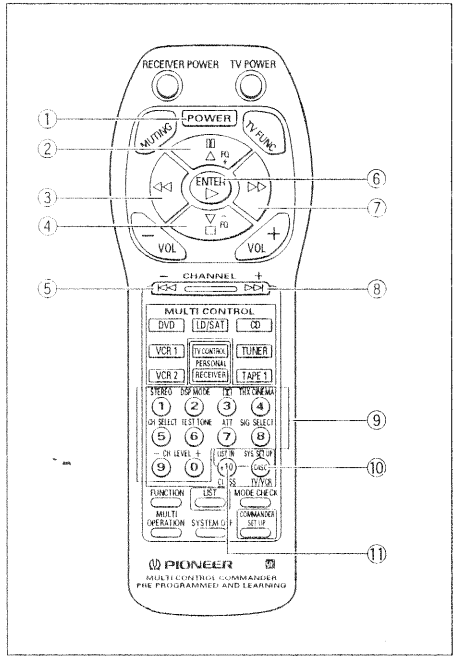
■ Operating with the main unit

1. Select the source to be recorded using the Function buttons.
2. Start recording with VCR 1 or VCR 2.
3. Play back the source to be recorded.

memo

The volume, tone, balance, and surround settings of this unit have no effect on the recording signal.

OPERATING OTHER COMPONENTS



LD PLAYER/DVD PLAYER operation

Set the input source to LD/SAT or DVD, and operate as desired using the following buttons.

① **POWER**
Use to turn ON/OFF the LD player or DVD player.

② **II**
Use to pause. (In some players, pressing this button may set still pictures.)

③ **◄◄**
Continuously pressing this button will set fast rewind playback.

④ **■**
Pressing this button during playback will stop the unit. (With some LD players, the disc table may come out if pressed while stopped.)

⑤ **I◄◄**
Pressing and releasing this button immediately returns playback to the beginning of the chapter (track) currently being played. Pressing it continuously returns playback to the beginning of a previous chapter (track).

⑥ **►**
Starts playback.

⑦ **►►**
Pressing this button continuously will start fast forward playback.

⑧ **►►I**
Pressing and releasing this button immediately advances playback to the beginning of the next chapter (track). Pressing it continuously advances playback to the beginning of a future chapter (track).

⑨ **Number buttons**
Use to select the chapter (track).

⑩ **(SIDE A/B for LD) (MENU for DVD)**
LD: Switches between sides A and B of the disc.
DVD: Turns ON/OFF the menu screen.

⑪ **+10**
Use to select chapter (track) numbers higher than 10.
Example: Chapter (track) 34

+10 → +10 → +10 → 4

SAT (Satellite Tuner) operation

Set the input source to LD/SAT, and operate as desired using the following buttons.

① **POWER**
Use to turn ON/OFF the power of the satellite broadcast tuner.

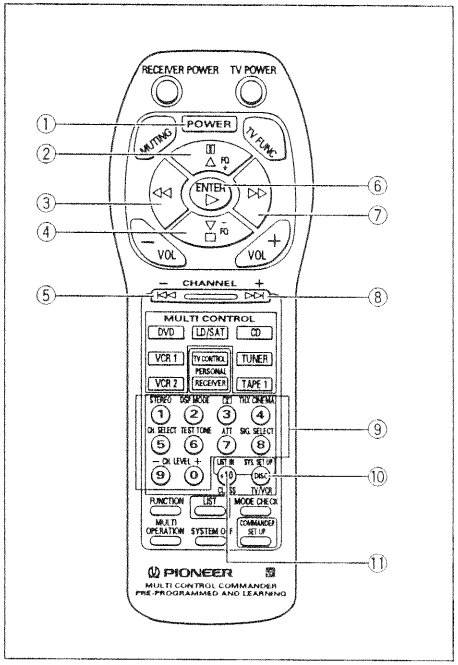
②▲, ③◄, ④▼, ⑦►
Serve as cursor buttons for obtaining information on programs.

⑥ **ENTER**
Use to set the position of the cursor selected using the ②, ③, ④, and ⑦ buttons.

⑤ **I◄◄**, ⑧ **►►I** **(GUIDE)**
Use to turn ON/OFF the program information screen.

⑨ **Number buttons**
Use to select satellite broadcast channels.

⑩ **(MENU)**
Use to turn ON/OFF the main menu.



CD PLAYER operation

Set the input source to CD, and operate as desired using the following buttons.

① POWER

Use to turn ON/OFF the CD player.

② ⏸

Use to pause playback.

③ ◀◀

Continuously pressing this button will start fast rewind playback.

④ ■

Stops playback.

⑤ |◀◀

Pressing and releasing this button immediately returns playback to the beginning of the track currently being played. Pressing it continuously returns playback to the beginning of a previous track.

⑥ ▶

Starts playback.

⑦ ▶▶

Pressing this button continuously will start fast forward playback.

⑧ ▶▶|

Pressing and releasing this button immediately advances playback to the beginning of the next track. Pressing it continuously advances playback to the beginning of a future track.

⑨ Number buttons

Use to select songs directly.

⑩ DISC

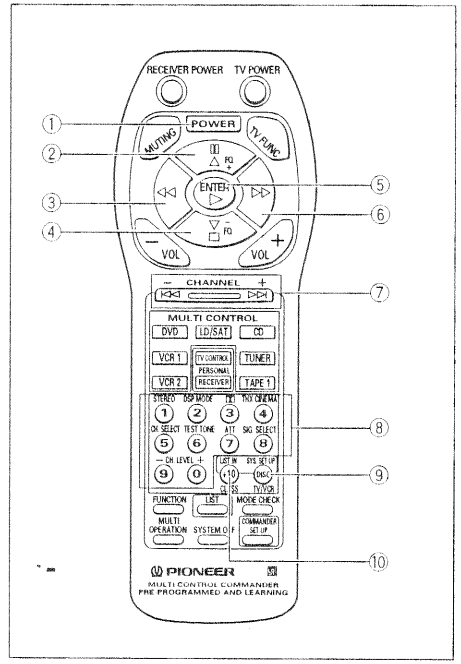
Use to select the disc number.
(Some CD players cannot be operated.)
Example:
When selecting disc number 27

② → ⑦ → ⑩

⑪ ⑩ (track) button

Use to select the track number.
(Some CD players cannot be operated.)
Example:
When selecting track number 15

⑩ → ⑤



CASSETTE DECK/VCR operation

Set the input source to VCR 1, VCR 2 or TAPE 1 and operate as desired using the following buttons.

[Operations common to the cassette deck/VCR]

① POWER

Use to turn ON/OFF the power of the cassette deck or VCR.
(Cannot turn ON/OFF some cassette decks.)

② ⏸

Pauses playback and recording (sets still pictures).

③ ◀◀

Rewinds the tape. Pressing this button during playback will start fast rewind playback.

④ ■

Stops tape running.

⑤ ▶

Starts playback.

⑥ ▶▶

Fast forwards the tape. Pressing this button during playback will start fast forward playback.

[VCR only]

⑦ CHANNEL +, –

Changes the channels of the TV tuner in the VCR.

⑧ Number buttons

Use for selecting the channels of the TV tuner in the VCR.

⑨ TV/VCR

Use to switch the VCR antenna output to TV or VCR.

⑩ ENTER

Sets the channels selected using the Number buttons.
(Some models may not require this step.)

[Cassette deck only]

For double cassette decks, the ⑧ Number buttons can be used to operate deck 1 also.
(Some models cannot be operated.)

⑧ ① (◀◀)
Fast forwards the tape in the direction of the arrow.

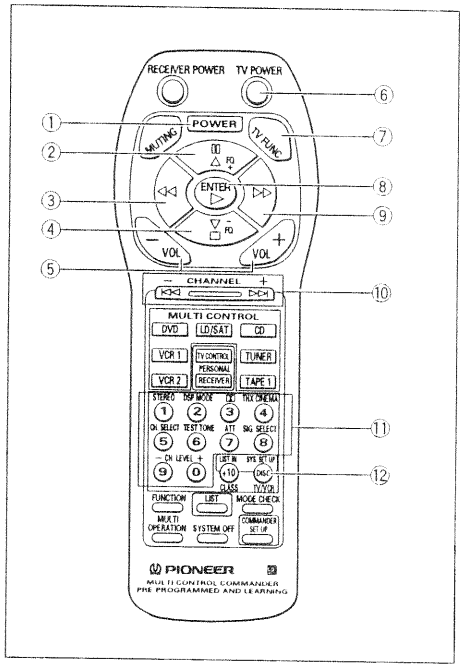
② (■)
Stops tape running.

③ (▶)
Plays back.

④ (▶▶)
Fast forwards the tape in the direction of the arrow.

memo

Pressing ② ⏸ and ④ ■ simultaneously will also set REC for the VCR and cassette deck.
REC cannot be set for deck 1 of double cassette decks.



TV operation

Set the input source to TV CONTROL, and operate as desired using the following buttons.

① **POWER**
Use to turn ON/OFF the TV power.

② ▲
Raises the TV volume.

④ ▼
Lowers the TV volume.

⑤ **VOL +, –**
Use to adjust the TV volume. (When operating other devices, this is used for adjusting the volume of this unit.)

⑧ **ENTER**
Sets the channels selected using the Number buttons. (Some models may not require this operation.)

⑩ **CHANNEL +, –**
Use to select a TV broadcast channel.

⑪ **Number buttons**
Use to select TV broadcast channels.
Example: When selecting channel 25

② → ⑤

With some models, press ⑧ ENTER after selecting the channel to set the selection.

[Operation for TVs with a menu screen (PIONEER products only)]

②▲, ③◀, ④▼, ⑨▶
Use to move the cursor in the menu screen up, down, left, and right.

⑧ **ENTER**
Sets the position of the cursor selected using the ②, ③, ④, and ⑨ buttons.

⑫ **(MENU)**
Displays the menu screen for adjusting picture quality.

The following buttons can be used regardless of the input source setting.

⑥ **TV POWER**
Use to turn ON/OFF the TV power.

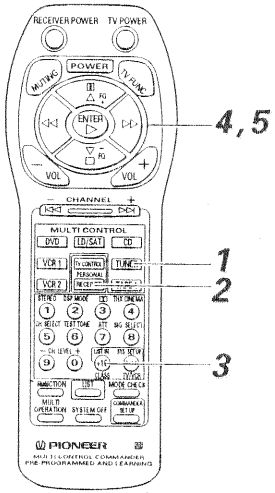
⑦ **TV FUNC**
Use to select the TV input. (Cannot be selected in some TVs.)

MODE CHECK BUTTON

When the MODE CHECK button is pressed once, the MULTI CONTROL button currently selected will light. When the MODE CHECK button is pressed again while lit, the MULTI CONTROL buttons will light in order, enabling the selected device to be remote controlled without changing the function of this unit.

CREATING A TUNER LIST

A tuner list may be used to record your favorite stations to memory.



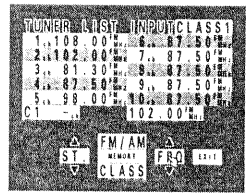
memo

Up to 10 stations can be memorized in each of three classes.

1. **Set the TUNER function.**

2. **Select the RECEIVER button to enable RECEIVER operation.**

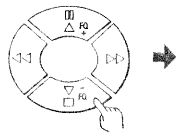
3. **Set the TUNER LIST INPUT mode.**



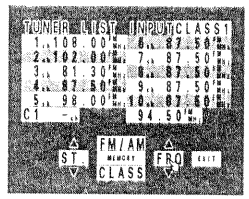
4. **Select the band (FM or AM).** → Align the cursor over "FM/AM" display and press the ENTER button.

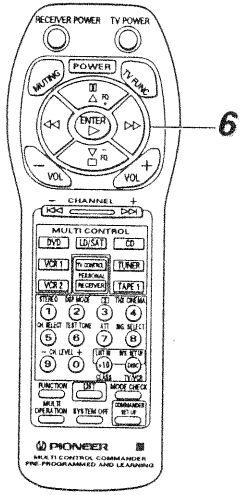
FM
AM

5. **Select the broadcast station.**

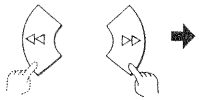


Align the cursor over "FRQ" and use the △ and ▽ button to specify the frequency of the station to be committed to memory.

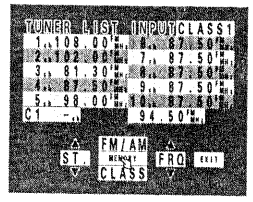


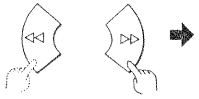


6. Record the specified station setting.

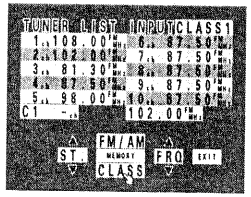


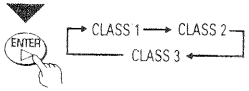
Align the cursor over "MEMORY" and press the ENTER button.

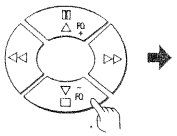




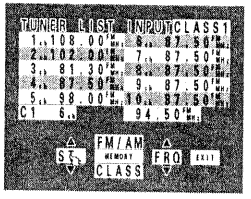
Align the cursor over "CLASS" and press the ENTER button.





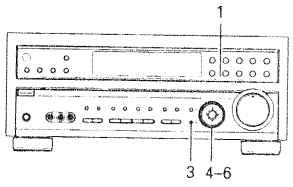


Press the △ and ▽ keys to specify the number of the station to be recorded to memory.



Press the ENTER button, and within five seconds the station will be committed to memory.

To exit the TUNER LIST screen, align the cursor over "EXIT" and press either the ENTER button or the LIST IN button.

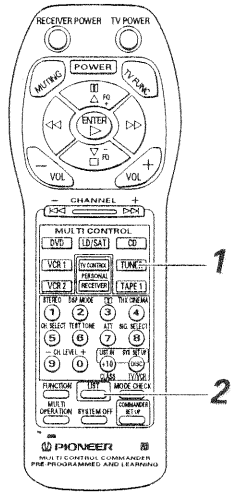


■ Recording station settings using the main unit

It is also possible to record station settings using the main unit in the same way as when using the remote control unit. (Note that when recording station settings using the main unit, there is no need to perform the operation described in step 2.)

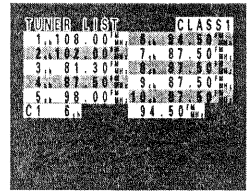
Displaying the TUNER LIST (remote control unit only)

The list of stations recorded to memory will be displayed 10 stations at a time.
It is also possible to select the station to which you wish to listen from this list.



1. Set the TUNER function.

2. Display the TUNER LIST.



* The tuner list for the following class will be displayed each time you press the LIST button.

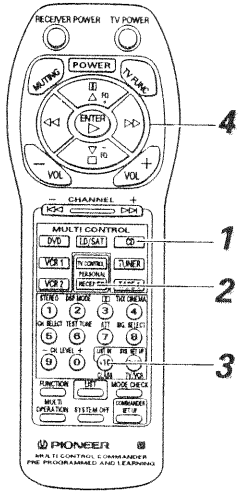
If no keys are pressed or no selections made for a period of 30 seconds, the TUNER LIST display will automatically disappear from the screen.
To exit from the TUNER LIST display, press the TUNER button.

CREATING A CD LIST

The CD LIST feature may be used to record the names of up to a maximum of 100 CDs designed for use with file-type CD players. The length of each name can be a maximum of 16 characters.

memo

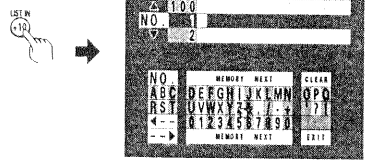
- Turn on the power to the receiver and the television.



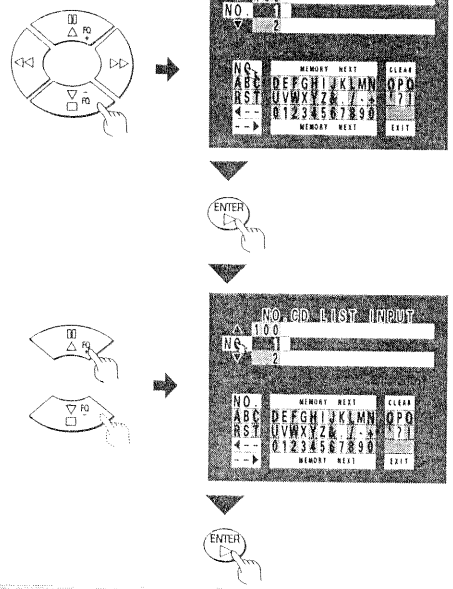
1. Set the CD function.

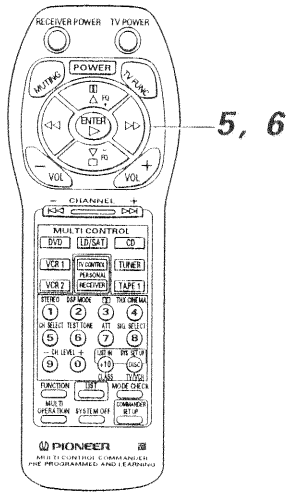
2. Select the RECEIVER button to enable RECEIVER operation.

3. Set the CD LIST INPUT mode.



4. Select the desired CD number.





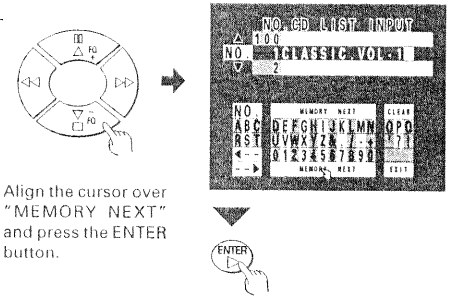
5. Enter the name for each CD.

To enter text:
Align the cursor over the letter or digit to be entered and press the ENTER button.

To correct text which has been entered:
Align the cursor over "◄ – –" or "– – ►" and press the ENTER button to select the letter or digit to be corrected. Then enter a new letter or digit to correct the name which has been entered.

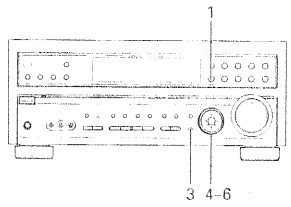
To delete text which has been entered:
Align the cursor over "CLEAR" and press the ENTER button. All text which has been entered for the selected CD number will then be deleted.
If you wish to delete a single letter or digit, select the letter or digit to be deleted, align the cursor over " " and press the ENTER button to delete.

6. Record the name entered to memory.



Align the cursor over "MEMORY NEXT" and press the ENTER button.

Pressing the ENTER button causes the input screen to move on to the input screen for the name of the next CD number. To quit, align the cursor over "EXIT" and press either the ENTER button or the LIST IN button.

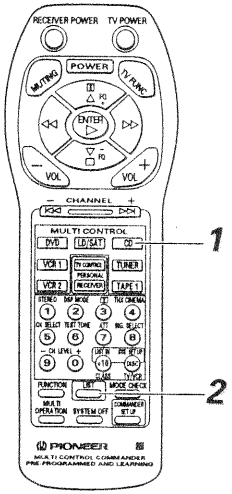


■ Entering names using the main unit

It is also possible to enter names using the main unit in the same way as when using the remote control unit. (Note that when entering names using the main unit, there is no need to perform the operation described in step 2.)

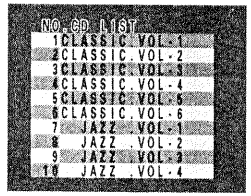
Displaying the CD LIST (remote control unit only)

The list of names of CDs which has been recorded to memory will be displayed on-screen ten titles at a time.
This list may be used to find a CD when you wish to select the number of a CD to be played.



1. Set the CD function.

2. A list of CD titles will be displayed.



* Ten more titles will be displayed every time you press the LIST button.

To play a CD, press the numeric and DISC button.
Example: When selecting disc number 54.

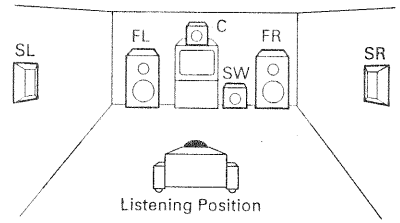
⑤ → ④ → (DISC)

The list of CD titles will automatically disappear from the screen if no operation is performed for 30 seconds. To exit from the CD LIST display, press the CD button.

5. OTHER

SURROUND

Surround type

Dolby Digital (AC-3)	Dolby Pro Logic Surround
Mode for enjoying movie and music software with the DOLBY DIGITAL (DOLBY SURROUND PRO LOGIC) mark. Dolby Digital (AC-3) is a compression format which records the sound of 6 channels of the theater surround system (Dolby Digital) on the movie film digital track. Of the 6 channels, the sub woofer channel is intended for bass only, and because the frequency range is smaller than the main channel, it is expressed as 5.1 channel.	Set to this position for movie and music sources (especially software with the DOLBY SURROUND mark). The Dolby Pro Logic Surround continuously detects the size and direction of the input signal. This clarifies the position of the sound source, reproducing natural sound flow.  * In the above figure, F stands for FRONT speakers, S for SURROUND speakers, C for CENTER speakers, SW for sub woofer, R for right, and L for left.

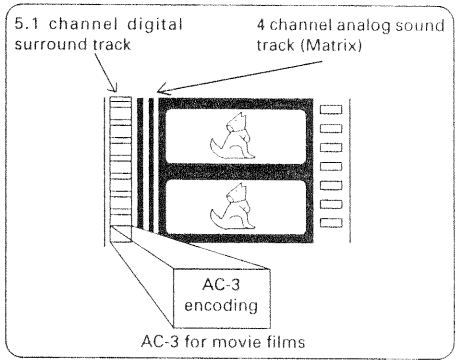
Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "AC-3", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

■ DSP mode

HALL	Simulates the acoustic effects of a large concert hall in Europe. Suitable for classical music. Long delay time of reflected sounds (approx. 20 to 200 ms), coupled with reverberation effects let the listener enjoy the dynamic and beautiful sounds characteristic of concert halls and powerful orchestral performances.
JAZZ	Simulates the acoustic effects of general jazz clubs with a floor space of around 400m² (approx.4200ft²). Reflected sound is virtually below 100 ms, for the listener to enjoy live-band effects.
DANCE	Simulates the acoustic effects of discos with a square dance floor. Features strong bass sound. Reflected sound delay time is virtually below 50 ms, for the listener to enjoy the "fever" of disco sounds.
THEATER 1	Sets the delay time of the reflected sound best suited for playing back acoustic parameters of a medium movie theater (with seating capacity of 300) in your living room. (About 30 to 120 msec.)
THEATER 2	Reproduces theater sound field effects without losing the localization of each channel.

Dolby Digital (AC-3)

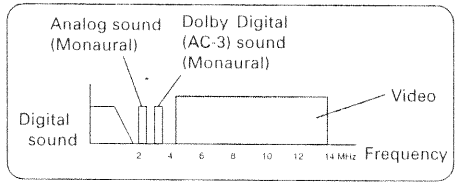
Dolby Digital (AC-3) is the name of the Dolby surround multi-channel digital system that was developed after the Dolby Surround System and Dolby Pro Logic Surround System.



The number of movies made using Dolby Digital since 1992 has exceeded 300 and continues to increase. For compact disc players and laser disc digital sounds, 16 bits are used to sample the original analog audio waveform and sampling is carried out 44,100 times every second. However because an enormous amount of recording signal data is required for the multi channel system with this method, AC-3 is used to compress the data.
In reproducing audio signals, the smaller the bit number used, the lower the sound quality. With AC-3, drop in auditory sound quality is prevented by using masking technology and digital filtering technology based on the personal auditory characteristics.

■ Laser disc format

Laser discs are now available on the market in large numbers. This means that the recording of different format audio signals on the laser disc raises the important question of compatibility with existing laser discs. Dolby Digital (AC-3) records signals using one analog audio channel to maintain this compatibility with existing discs and players.
As shown in the following figure, the digital audio sounds of Dolby Digital (AC-3) discs can be played back as currently done. Analog sounds are played back by using the other channel without the Dolby Digital (AC-3) signals for monaural audio signals.



■ Comparison with Dolby Pro Logic Surround

Dolby Digital (AC-3) is also known as the 5.1 channel system. It is equipped with 5 channels (front left, front right, center, surround left, surround right) in the frequency range from 20 Hz to 20 kHz and an independent sub woofer channel. The sub woofer channel is also called LFE (Low Frequency Effect).
The LFE channel can be used as desired to enjoy strong bass sounds.
The following table shows the comparison with Dolby Pro Logic Surround effects.

	Dolby Digital (AC-3)	Dolby Pro Logic Surround
No. of recording channels	5.1 channels (Max.)	2 channels
No. of playback channels	5.1 channels (Max.)	4 channels
Playback channel structure	Front left, front right, center, surround left, surround right, sub woofer	Front left, front right, center, surround
Sound processing	Digital discrete processing	
Rear (Surround) high frequency playback limit	20,000 Hz	Analog matrix processing 7,000 Hz
Other	• 5.1 channel is completely independent • High dynamic range • Stable position, high phase characteristics, and advanced surround effects reproduction	

THX

THX is a Lucasfilm, Ltd. program dedicated to maximum accuracy in movie presentation. Movie soundtracks are recorded in large movie dubbing stages using movie theater equipment. For a soundtrack to be presented accurately in your home, special technologies are required. In your home the room is much smaller and has a lively sound, the speakers are very different and there are only six of them, plus, you sit much closer to each one of those speakers. Because of these differences we often miss the power and emotion that so thrills us in a good movie. Now Pioneer and THX have teamed up to bring the full glory of accurate cinema sound to the comfort and convenience of your home.

Re-Equalization™: In a theater the room is very large and dead sounding, you sit a long way back from the speaker and the speakers themselves are very specialized. Because a soundtrack recorded in this dead sounding space when it is played at home it sounds overbright. THX Re-Equalization adjusts for this difference in a very precise way.

Dynamic Decorrelation™: When a soundtrack sends mono sound to the surround speakers it often seems to be coming come from one side instead of from all around you as it would in a theater. Dynamic Decorrelation helps to correct this inaccuracy.

Timbre Matching™: When recording a soundtrack it is very important that the surround sounds move smoothly and seamlessly around the theater. It is very distracting when sounds seem to jump from speaker to speaker. Timbre Matching helps to smooth the movement of the surround sounds even though you are using only two speakers.

Bass Peak Level Manager™: Some Dolby Digital soundtracks can produce bass peaks that are undesirable in a home theater environment. The Bass Peak Level Manager allows you to set the maximum peak levels appropriate to your system. (Set this function according to the instructions on page 21.)

Loudspeaker Position Time Synchronization™: This feature allows you adjust for the difference in the distance from each individual loudspeaker to the listening position. Doing this insures that all the speakers operate in precise synchronization improving the seamless nature of the soundfield. (Set this function according to the instructions on page 18.)

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
The power does not turn ON.	• The power plug is disconnected from the outlet. • The cause may lie in the protection circuit.	• Insert into the wall outlet. • Disconnect the power plug from the outlet, and insert again.
The unit does not work even when the buttons are pressed.	• Due to effects of static electricity when the air is dry.	• Press the front panel RESET button. • Disconnect the power plug from the outlet, and insert again.
No sound is output when a function is set.	• Not properly connected. • Sound is muted. • The volume is turned down. • The TAPE 2 MONITOR is ON. • The speaker switch is OFF.	• Refer to pages 12 to 15 and connect again. • Press the MUTING button on the remote control unit. • Adjust MASTER VOLUME. • Press the TAPE 2 MONITOR button. • Press the SPEAKER button of terminal (A/B) connected to the speakers.
No image is output when a function is set.	• Not properly connected. • The input source is not properly selected.	• Refer to pages 12 and 13, and connect again. • Press the correct button.

Symptom	Cause	Remedy
Considerable noise in radio broadcasts	● Not received at proper frequency. ● The antenna is not connected. ● AC-3 RF and digital signal connection wires are near the antenna terminal and antenna wires.	● Receive the correct frequency. ● Connect the antenna properly. (P. 12, 13) ● Distance the AC-3 RF and digital signal wires from the antenna terminal and antenna wires.
	[FM broadcast reception] ● The FM antenna is not stretched out, and faces an inappropriate direction. ● Weak radio waves.	● Stretch out the antenna and secure it to a wall while selecting the direction and position with the best reception state. ● Change the FM antenna to an outdoor antenna of multiple elements. (P. 12)
	[AM broadcast reception] ● The AM antenna faces inappropriate direction. ● Weak radio waves. ● Affected by other equipment. (Fluorescent lamp, motor, etc.)	● Select the direction and position with the best reception state. ● Connect a 5 to 6 meter long vinyl-coated wire to the AM antenna terminal and extend the wire outdoors, if possible. (P. 12) ● Turn off the equipment which cause noise or move them away from the unit. ● Distance the antenna from the equipment which cause noise.
Broadcast stations cannot be selected automatically.	● Weak radio waves.	● Change the FM antenna to an outdoor antenna of multiple elements. (P. 12)
No sound from surround or center speakers.	● Settings are incorrect. ● Surround or Center level is turned down. ● The SURROUND or CENTER speaker is disconnected.	● Refer to page 17, and set. ● Raise the level. ● Connect. (P. 13)
Sound is produced from other functions, but no sound from LD player or DVD player.	● SIGNAL SELECT is set to other input signal than that connected to. ● Setting of digital input (OPTICAL or COAXIAL) is incorrect.	● Set the SIGNAL SELECT to AUTO. ● Set with the OPTICAL button. (P. 36)
Cannot be remote controlled.	● The remote control unit batteries have worn out. ● Too great of a distance. Bad angle. ● There is an obstacle blocking signals in between the unit and the remote control. ● Strong light such as fluorescent light is shining onto the unit's remote control signal light-receiving window.	● Replace the batteries. (P. 7) ● Operate within 7m, 30 deg. from the left and right of the unit's remote control light-receiving window. ● Remove the obstacle or operate from somewhere else. ● Avoid direct exposure of the remote control light-receiving window to the light.

If the unit does not operate normally due to external effects such as static electricity, press the RESET button on the front panel or disconnect the power plug from the outlet and insert again to return to normal operating conditions.

LIST OF MANUFACTURER CODES

Device	Manufacturer	Manufacturer Code
DVD	TOSHIBA	001
	PIONEER	000
LD	SONY	101
	PANASONIC	105,106
	KENWOOD	103
	PHILIPS	104
	MITSUBISHI	100
	RCA	107
	PIONEER	100
		102 (DVD LD player)
SAT	RCA	201,203
	SONY	202
	PIONEER	200
VCR	RCA	401,406,408,414,405,413,411
		415
	ZENITH	403,404,417
	MAGNAVOX	414,408,426,403
	FISHER	410,426,412,427,425,420
	PANASONIC	408,432,433
	TOSHIBA	405,409,426
	JVC	428,430,429,408,414,431,407
	HITACHI	408,401,406,436,434
	SONY	416,417,404,408
	MITSUBISHI	409,420,421,422,423,424,408
		407
	SANYO	410,412,425,435
	SHARP	402,418,419
	GOLDSTAR	411,409
	OPTIMUS	408,432,433,402,418,419
	PIONEER	400
TAPE	SONY	801,806
	TECHNICS	803
	KENWOOD	804,807
	TEAC	805
	DENON	810
	ONKYO	809,808
	YAMAHA	811,812
	JVC	802
	FISHER	813
	OPTIMUS	800
	PIONEER	800

Device	Manufacturer	Manufacturer Code
CD	SONY	301,316,317,318
	TECHNICS	304,326
	KENWOOD	310,321,311
	DENON	309
	RCA	302,319,313
	PHILIPS	312,322
	YAMAHA	315,314,328
	JVC	303
	TEAC	305,306,327,324,325
	ONKYO	320,308,307
	MARANTZ	323,312,324
	SANYO	313
	OPTIMUS	300
	PIONEER	300
TV	RCA	601,610,615,616,617,618
	ZENITH	603,620
	MAGNAVOX	607,610,603,612,629
	GE	601,608,607,610,617,602,628
		618
	PANASONIC	608,622,607
	SONY	604
	TOSHIBA	605,602,626,621
	MITSUBISHI	609,610,602,621
	HITACHI	606,610,624,625,618
	JVC	613,623
	SHARP	602,619,627
	SANYO	621,614
	PHILIPS	607
	GOLDSTAR	610,623,621,602
	RADIO SHACK	610,623,621,602
	PIONEER	600
CATV	JERROLD	711,701,702,712,704,713,703
		714,716,715
	S.ATLANTA	705,706,708,709
	ZENITH	707,717,710
	PIONEER	700

SPECIFICATIONS

Amplifier Section

Continuous average power output of 100 watts* per channel, min., at 6 ohms, from 20 Hz to 20,000 Hz with no more than 0.09 % total harmonic distortion (front).**

Continuous Power Output
- Front ..... 100 W + 100 W (1 kHz, 0.8 %, 6 Ω)
- Center ..... 100 W (1 kHz, 0.8 %, 6 Ω)
- Surround ..... 100 W + 100 W (1 kHz, 0.8 %, 6 Ω)

Input (Sensitivity/Impedance)
- PHONO MM ..... 3.8 mV/47 kΩ
- LD/SAT, CD, VCR 1, VCR 2, TAPE 1, TAPE 2, DVD/TV, VIDEO ..... 275 mV/47 kΩ

Phono Overload Level (T.H.D. 0.1 %, 1kHz)
- PHONO MM ..... 100 mV

Frequency Response
- PHONO MM ..... 20 Hz to 20,000 Hz ± 0.3 dB
- LD/SAT, CD, VCR 1, VCR 2, TAPE 1, TAPE 2, DVD/TV, VIDEO ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB

Output (Level/Impedance)
- VCR 1, VCR 2, TAPE 1 REC, TAPE 2 REC ..... 275 mV/2.2 kΩ

Tone Control
- BASS ..... ± 6 dB (100 Hz)
- TREBLE ..... ± 6 dB (10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network) (Direct On)
- PHONO MM ..... 80 dB
- LD/SAT, CD, VCR 1, VCR 2, TAPE 1, TAPE 2, DVD/TV, VIDEO ..... 97 dB

Signal-to-Noise Ratio [EIA, at 1 W (1kHz)] (Direct On)
- PHONO MM ..... 80 dB
- LD/SAT, CD, VCR 1, VCR 2, TAPE 1, TAPE 2, DVD/TV, VIDEO ..... 83 dB

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.*
** *Measured by Audio Spectrum Analyzer.*

VIDEO Section

Input (Sensitivity/Impedance)
- LD/SAT, VCR 1, VCR 2, DVD/TV, VIDEO ..... 1 Vp-p/75 Ω

Output (Level/Impedance)
- VCR 1 REC, VCR 2 REC, MONITOR TV ..... 1 Vp-p/75 Ω

Frequency Response
- LD/SAT, VCR 1, VCR 2, DVD/TV, VIDEO → MONITOR ..... 5 Hz to 7 MHz $^{+0}_{-3}$ dB

Signal-to-Noise Ratio ..... 55 dB
Cross Talk ..... 55 dB

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono: 11.2 dBf, IHF (1.0 μV/75 Ω)
50 dB Quieting Sensitivity ..... Mono: 16.8 dBf, Stereo: 38.6 dBf
Signal-to-Noise Ratio ..... Mono: 73 dB (at 85 dBf), Stereo: 70 dB (at 85 dBf)
Distortion ..... Stereo: 0.5 % (1kHz)
Alternate Channel Selectivity ..... 60 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (± 1) dB
Antenna Input ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 531 kHz to 1,602 kHz (9 kHz step), 530 kHz to 1,700 kHz (10 kHz step)
Sensitivity (IHF, Loop antenna) ..... 350 μV/m
Selectivity ..... 25 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements ..... AC 110 V/120-127 V/220 V/240 V (Switchable), 50/60 Hz
Power Consumption ..... 500 W
In Standby Condition ..... 2.5 W
AC Outlet
- SWITCHED (x2) ..... 100 W MAX
- UNSWITCHED (x1) ..... 100 W MAX

Dimensions ..... 420 (W) × 177 (H) × 449 (D) mm
Weight (without package) ..... 14.2 kg (z)

Furnished Parts

FM Antenna 1
AM Loop Antenna 1
Dry Cell Batteries (AA/LR6) 2
Remote Control Unit 1
Operating Instructions 1
Sub instruction manual (Remote Control Unit) 1
Sub instruction manual (System Set up) 1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surfaces.

Published by Pioneer Electronic Corporation.
Copyright © 1997 Pioneer Electronic Corporation.
All rights reserved.